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## HARRISON ANTINARCOTIC LAW.

**UNITED STATES COURT DECIDES THAT THE ISSUING OR FILLING OF A PRESCRIPTION FOR AN UNNECESSARILY LARGE AMOUNT OF HABIT-FORMING DRUGS IS A VIOLATION OF THE LAW.**

The United States District Court for the Northern District of New York has decided that it was the purpose of Congress in passing the Harrison antinarcotic law to limit the quantity of habit-forming drugs that may be prescribed by a physician or sold on a physician's prescription to such an amount as is necessary to meet the needs of the patient for whom the prescription is given. The court holds that a prescription for an unusually large quantity of any of the drugs enumerated in the law must show the reason why the large quantity is required, and; if it does not, both the physician who writes the prescription and the druggist who fills it are guilty of violating the law. (See p. 1203 of this issue of the Public Health Reports.)

Judge Ray, in the opinion, said that he was unable to agree with the decision in *United States v. Friedman* (P. H. R., Dec. 24, 1915, p. 3777), which held that the law did not limit the amount of habit-forming drugs which may be prescribed by a physician.

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## NOTIFICATION OF DISEASE.

### AN ANNOUNCEMENT THAT IT WILL BE ENFORCED IN BOSTON.

The Boston city health department in its monthly bulletin for March, 1916, has notified physicians that it intends to enforce the State law in regard to the notification of diseases dangerous to the public health. The announcement reads in part:

#### Warning.

Physicians are hereby notified that it is the purpose of this department to see that the \* \* \* law for reporting all diseases that have been declared dangerous to the public health shall be complied with.

The people of this city depend upon the health department to warn them and their families of a sickness that is liable to be a source of infection to them. It is impossible for the health department to furnish such protection without having definite knowledge of the cases and their location. \* \* \*

**TERTIAN MALARIAL FEVER.****TRANSMISSION EXPERIMENTS WITH ANOPHELES PUNCTIPENNIS.**

By M. BRUIN MITTEMAI, Technical Assistant, United States Public Health Service.

The first experimental proof of the infection of *Anopheles punctipennis* Say by *Plasmodium vivax* is offered by King in a recent number of the American Journal of Tropical Diseases and Preventive Medicine.<sup>1</sup> Two experiments are described in which seven mosquitoes were induced to feed, resulting in infection of six, four with oocysts on the stomach wall and two with gland and stomach sporozoites; infection developed after a period of 7 to 31 days.

The present account of work carried on in connection with malarial investigations under the direction of Surg. R. H. von Ezzdorf describes experiments confirming King's findings and further extending the investigation with a greater number of specimens, in addition to presenting positive results of human infectibility experiments with the same species. Although it has been commonly accepted that the presence of gland sporozoites in a given species of *Anopheles* is sufficient to incriminate that species as a potential vector of malaria, human control experiments were considered desirable. The wide distribution of *Anopheles punctipennis* in the United States and its demonstrated relations to matters of public health will require its inclusion among mosquitoes against which antimalarial measures should be directed in the future.

Laboratory reared mosquitoes were unfortunately not available at this time; it is realized that these are essential in order to eliminate the possibility of previous contamination. Less suitable material was employed in these experiments, as "wild" *Anopheles* collected during the early part of January were used. The improbability of infection of "wild" *Anopheles* mosquitoes in this section and during this season seemed to warrant their use in conducting these experiments.

For the purpose of this study, 388 specimens of *Anopheles punctipennis* were collected in barns and stables at Talladega Springs, Ala., January 7-15, 1916, and transported in cages to the New Orleans laboratory. The feeble and dead mosquitoes were withdrawn upon arrival and either used for smear preparations or dissected in the usual manner for the purpose of examination for malarial parasites. One hundred and sixty-six mosquitoes were separately suspended in a drop of saline-dissecting medium on a slide and the abdominal and thoracic contents were teased out. Smears were then made from each and stained over night in a weak Giemsa stain.

<sup>1</sup>W. V. King (1916), *Anopheles punctipennis*, A Host of Tertian Malaria. American Journal of Tropical Diseases and Preventive Medicine, vol. 3, No. 8, February, 1916, pp. 426-432.

One hundred and twenty-six specimens were fed on a healthy person at least once each, then dissected during a period of 20 days. The results in all instances failed to indicate the presence of any plasmodial infection.

An untreated patient suffering from tertian malarial fever volunteered for the purpose of furnishing the parasites required in this experiment. During the interval of awaiting gametocyte development (Jan. 17-Feb. 6) several generations of complete schizogony were observed to occur in the patient's blood. However, sporogony was unduly inhibited up to January 29, too few gametocytes being present to assure infectivity of the definitive hosts. Finally, sufficient numbers of sexual forms matured during January 29 to February 6, at the termination of which period (Feb. 6 and 7) mosquitoes were applied to the patient.

The paucity of sexual parasites in the blood of the donor may be appreciated from the counts made in a thick film and a thin film prepared February 7. In the two preparations 1,231 leucocytes were counted and the matured gametocytes encountered numbered two, an average of one gametocyte to 616 leucocytes. In addition to these there were observed, in the two blood specimens, 48 half-grown gametocytes and 5 ranging in size from three-fourths to nearly full-grown forms. At the time of these examinations the patient had been started on a course of quinine treatment.

Forty specimens of *Anopheles punctipennis* were applied to the tertian donor in two lots on February 6 and 7, 1916; 20 of these died within five days and were dissected. Ookinetes were observed in at least eight of these, from which smear preparations were made. Twenty mosquitoes were dissected during a developmental period ranging from 6 to 25 days.

During the course of the experiment raisins and water were furnished as food, while the mosquitoes were subjected, prior to the 10th day, to an incubator temperature of 25.5°-26° C. Thirteen of this lot of 40 (equal to 32.5 per cent) became infected. The following protocol describes the degree of parasitism in each of the mosquitoes concerned:

No. 1. Dissected February 13, 1916. Incubation, six days. There were present four probably one-third grown oocysts (20 microns or less) apparently of the same age. One only showed a small amount of malarial pigment, the remainder lacking pigment, but with undifferentiated protoplasm, presporoblastic in character. The four oocysts were situated near the posterior end of the mid-gut. The six lobes of the salivary glands had a normal appearance.

No. 2. Date of dissection, February 14. Seven days' incubation. There were eight fairly well-developed oocysts situated between the middle and posterior end of the mid-gut. None of the bodies possessed pigment. A few (3) appeared with indistinct sporoblasts, the remainder being undeveloped with slightly mottled or reticulated contents. Five lobes of the salivary glands were examined; they appeared devoid of parasites.

No. 3. Date of dissection, February 14. Seven days' incubation. Eleven oocysts were seen on the mid-gut, the majority situated near the posterior end; four contained sporoblasts, though not well defined. Seven were presporoblastic in structure, though lacking malarial pigment. The salivary glands gave no evidences of parasitism.

No. 4. Dissected February 15. Incubation period, eight days. Five oocysts were seen, all found on the posterior end of the mid-gut. One contained a very small amount of pigment. This was the smallest parasite present. The others showed thin-walled capsules without sporoblasts. The salivary glands were negative.

No. 5. Dissected February 16. Nine days' incubation. On examination this mosquito showed 22 to 24 three-quarter grown oocysts, the majority appearing with definite sporoblasts; none showed a spiculed structure or sporozoites. The salivary glands, likewise, were not parasitized.

No. 6. Dissected February 16. Incubation 10 days. This contained six perfectly developed oocysts, with ripe sporozoites. One of the capsules ruptured under observation, resulting in a swarming of motile filaments in the saline suspension. In addition, two oocysts were present with only sporoblasts. Only three lobes of the salivary glands were dissected out. Two of these were jammed and matted with innumerable full-grown sporozoites, many of which were observed to escape through the gland cells into the saline dissecting medium.

No. 9. Dissected February 17. Incubation of 10 days. Only one shrunken oocyst with its contents expelled was found on the stomach wall. Both salivary glands were examined; the six lobes were heavily parasitized and a great number of free sporozoites were found in the mounting fluid.

No. 12. Dissected February 18. Incubation of 11 days. The stomach wall of this mosquito harbored two oocysts, one of which was much shriveled and both were empty of protoplasmic contents.

The salivary glands were moderately invaded with sporozoites which became active when set free in the mounting fluid.

No. 17. Dissected February 19. Twelve days' of incubation. Here no evidence of an oocyst was given, although the preparation was sufficiently clear to view the gut structures minutely. The salivary glands were invaded with a small number of typical sporozoites.

No. 18. Dissected February 19. Incubation 12 days. The structures of the midgut were fairly obscured by the projecting mass of oocysts. Twenty-eight of these bodies were counted; seven were observed to contain sporoblasts, while the majority of the remainder contained varying numbers of spindle organisms in different stages of development. Several of the bodies ruptured upon slight pressure, when swarms of relatively small sporozoites floated away from the ripe oocysts. The salivary glands in this specimen were heavily parasitized. Five of the lobes appeared granular with matted clusters of typical curved organisms. Numerous sporozoites were seen moving sluggishly through the saline medium.

No. 23. Dissected March 3. Incubation period 25 days. This specimen had been given a feeding of human blood five hours previously, consequently the alimentary tract was found engorged with blood. No oocysts or shrunken capsules were seen. Several sporozoites were seen moving freely in the solution surrounding the dissected stomach. The salivary glands were greatly hypertrophied; those lobes which in the dissection were torn loose with the head were parasitized with a moderate number of sporozoites, and a remaining single lobe afterwards removed from the thoracic cavity was seen to be greatly shrunken in size, its degenerated cells containing only a few sporozoites. A large number of these organisms were observed free and very active in some material dissected from the thorax.

No. 24. Dissected March 1. Incubation period 24 days. The midgut was seen with four oocystic capsules, three much shrunken, narrowed to probably one-half the width. One appeared normal in size, only slightly shrunken, containing three non-

motile sporozoit-like bodies. The dissected salivary glands were not removed cleanly from either the head or thorax. A small portion was attached to the head and two lobes of the glands were seen in material crushed from the thorax. On pressure, numerous very active sporozoites were observed. The gland structure was granular but no organisms were perceived in the cells on account of the presence of the mat of overlying fungous threads.

No. 25. Dissected February 23. Incubation period 16 days. The stomach of this specimen was not seen on account of the superimposed tangle of mycelium threads of some fungous parasite which probably caused the insect's death. When the gut wall was pressed a few sluggishly motile sporozoites were observed. These originated, probably, from a gut oocyst. Only small disjointed portions of the salivary glands were examined. These appeared heavily parasitized with more or less active sporozoites possessing the typical large refractile nucleus and sharply curved ends.

Nineteen specimens of *Anopheles crucians* Wied. were fed at the same time and kept under identical conditions with the *punctipennis*. Seven of these died within five days after feeding; three of these were found to contain numerous immature zygotes, and in one that was found dead on the second day, the ookinete stage was identified in the crushed stomach contents.

Two of the 12 surviving specimens of *Anopheles crucians* were found to be parasitized 11 and 13 days, respectively, after biting the blood donor. Both mosquitoes had a few shrunken oocysts and in only one of these were sporozoites observed. The salivary glands of one appeared granular with numerous clusters of filiform organisms distributed throughout the gland cells. In the other mosquito, only the terminal cells appeared invaded by a moderate number of sporozoites. In both specimens the sporozoites were typical in appearance, showing various degrees of activity, when the cover glass was pressed upon the parasitized glands.

Two specimens of *Anopheles quadrimaculatus* Say used as additional controls under the same conditions proved to be negative.

In order to eliminate any possibility of doubt as to the nature of the parasites harbored by the mosquitoes and as a further check on the infectivity of *Anopheles punctipennis*, three healthy persons volunteered to permit biting of these mosquitoes. Four specimens were selected for the purpose, namely, Nos. 18, 23, 24, and 25. The first volunteer (H. E. H.) was bitten February 17 by all four of the mosquitoes applied. At this time the mosquitoes had been infected 10 days. In this feeding, the mosquitoes were not permitted to engorge themselves but were applied a sufficient length of time to convince the observer and the host that blood was being withdrawn. Directly after the biting, six very distinct moderate-sized macules developed on the arm at the site of application. Nine days elapsed before the volunteer experienced prodromal symptoms of any kind. The first paroxysm was observed 14 days after the biting and parasites of *Plasmodium vivax* were found in blood of H. E. H. on March 3 and March 4.

H. E. H. was employed previously in feeding mosquitoes which had been given the opportunity of becoming infected in two experiments from subtertian crescent carriers. More than 200 specimens of *Anopheles punctipennis* had been used in an attempt to transmit subtertian infection, with negative results. The volunteer, H. E. H., remained healthy throughout this test and subsequently for four months prior to the tertian transmission experiment. In the tertian infection the disease took its usual course and prompt recovery followed the use of therapeutic doses of quinine.

Two of the mosquitoes, namely, Nos. 23 and 24, were induced to bite the second volunteer, Dr. H. A. T., February 18. These were observed to bite vigorously to a point of repletion. The mosquitoes at this time had been infected for a period of 11 days. After an incubation period of 14 days, Dr. H. A. T. experienced a distinct paroxysm; also on the same day parasites of tertian malaria (*Plasmodium vivax*) were found in his blood.

A third volunteer, Dr. R. C. D., was bitten February 21 by mosquitoes, Nos. 24 and 25, 14 days after they had received an opportunity to become infected. The two specimens were applied to the arm so that they did not become engorged (interrupted feeding); the labia of both were observed to be inserted to the extreme before the mouths were withdrawn. Each bite required 40 seconds of time, resulting in distinct macules at the point of inoculation.

An incubation period of 14 days followed in this case, with prodromata and the usual symptoms of chill followed by fever. A slight paroxysm was experienced on March 4, and parasites were observed March 5. Distinct tertian rings (*P. vivax*) were demonstrated in the blood of the volunteer in two specimens examined at five-hour intervals on the second day after onset.

#### Summary.

1. *Anopheles punctipennis* has been proved to be a definitive host of tertian plasmodial infection. Under the conditions cited, 32.5 per cent of the 40 mosquitoes applied were positive as against 10.5 per cent of the *Anopheles crucians*. Only 20 specimens of *A. punctipennis* survived six days or longer after biting.

2. With a blood donor of low infectivity 13 mosquitoes of *A. punctipennis* showed infection from 6 to 25 days after securing parasitized blood. Eight of the positive specimens became infective as shown by moderate to immense numbers of typical sporozoites invading the salivary glands.

3. In a control series of 19 specimens of *Anopheles crucians*, two were infective with the parasites of *Plasmodium vivax* 11 and 13 days after biting the blood donor.

4. The infectibility of *Anopheles punctipennis* was demonstrated in the transmission of the disease through the biting of four mosquitoes which reproduced the infection in three healthy volunteers, living in New Orleans during February, 1916, after incubation periods of 14 and 15 days.

One of these persons had escaped infection four months previously from the bites of more than 200 *Anopheles punctipennis* in two experiments with the subtertian type. From this single instance it is indicated that *Anopheles punctipennis* served as a host of *P. vivax* but not of *P. falciparum*.

## PLAGUE-PREVENTION WORK.

### CALIFORNIA.

The following report of plague-prevention work in California for the week ended April 15, 1916, was received from Surg. Boggess, of the United States Public Health Service, in charge of the work:

#### SAN FRANCISCO, CAL.

##### RAT PROOFING.

New buildings:	
Inspections of work under construction.....	206
Basements concreted (square feet 34,920)....	39
Floors concreted (square feet 19,625).....	16
Yards, passageways, etc., (square feet) 13,258	72
Total area of concrete laid (square feet)....	67,803
Class A, B, and C (fireproof buildings):	
Inspections made.....	142
Roof and basement ventilators, etc., screened	325
Wire screening used (square feet).....	2,690
Openings around pipes, etc., closed with cement .....	350
Sidewalk lens lights replaced.....	700
Old buildings:	
Inspections made.....	424
Wooden floors removed.....	46
Yards and passageways, planking removed.	12
New foundation walls installed (cubic feet) 5,857	
Concrete floors installed (square feet 38,015) .	24
Basements concreted (square feet 29,430)....	33
Yards and passageways, etc., concreted (square feet 28,858).....	108
Total area concrete laid (square feet).....	96,303
Floors rat proofed with wire cloth (square feet 3,600).....	3
Buildings razed.....	25
New garbage cans stamped approved.....	605
Nuisances abated.....	278

##### OPERATIONS ON THE WATER FRONT.

Vessels inspected for rat guards.....	16
Reinspections made on vessels.....	18
New rat guards procured.....	2
Defective rat guards repaired.....	4
Rats trapped on wharves and water front...	23
Rats trapped on vessels.....	54
Traps set on wharves and water front.....	114
Traps set on vessels.....	49
Vessels trapped on.....	14

#### SAN FRANCISCO, CAL.—Continued.

##### OPERATIONS ON THE WATER FRONT—continued.

Poisons placed on water front (pieces).....	3,600
Poisons placed within Panama-Pacific International Exposition grounds (pieces).....	38,500
Bait used on water front and vessels, bacon (pounds).....	6
Bread used in poisoning water front (loaves)	9
Poison used on water front (pounds).....	3

##### RATS COLLECTED AND EXAMINED FOR PLAGUE.

San Francisco:	
Collected.....	419
Examined.....	334
Found infected.....	None.
Monterey County:	
Collected.....	4
Examined.....	4
Found infected.....	None.

##### RATS IDENTIFIED.

Mus norvegicus.....	201
Mus rattus.....	86
Mus alexandrinus.....	81
Mus musculus.....	51

##### SQUIRRELS COLLECTED AND EXAMINED FOR PLAGUE.

County.	Collected.	Examined.	Found infected.
Alameda.....	54	54	None.
Contra Costa.....	634	634	None.
Monterey.....	581	581	4
San Benito.....	186	186	1
Santa Clara.....	28	28	1
Total.....	1,483	1,483	6

Ten rabbits examined from Monterey County. Not infected.

## RANCHES INSPECTED AND HUNTED OVER.

Contra Costa County.....	67
Monterey County.....	37
San Benito County.....	30
Alameda County.....	17
Santa Clara County.....	1
Total.....	152

## PLAGUE-INFECTED SQUIRRELS.

## Monterey County:

Shot Mar. 30, 1916. Johnson ranch, 12½ miles south of Salinas.....	1
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## PLAGUE-INFECTED SQUIRRELS—Continued.

## Monterey County—Continued.

Shot Apr. 1, 1916. C. Herbert ranch, Morojoco grant, 7½ miles northeast of Salinas....	2
Shot Apr. 3, 1916. S. Dedini ranch, sec. 18, T. 20 S., R. 9 E., 4½ miles southeast of King City.....	1
San Benito County:	
Shot Apr. 4, 1916. D. J. Watson ranch (Rancho San Justo), T. 13 S., R. 5 E.....	1
Santa Clara County:	
Shot Mar. 29, 1916. Pacheco Cattle Co. property, Bell Station, Pacheco Pass, T. 10 S., R. 7 E.....	1

## RECORD OF PLAGUE INFECTION.

Places in California.	Date of last case of human plague.	Date of last case of rat plague.	Date of last case of squirrel plague.	Total number rodents found infected since May, 1907.
<b>Cities:</b>				
San Francisco.....	Jan. 30, 1908	Oct. 23, 1908	None.....	398 rats.
Oakland.....	Aug. 9, 1911	Dec. 1, 1908	do.....	126 rats.
Berkeley.....	Aug. 28, 1907	None.....	do.....	None.
Los Angeles.....	Aug. 11, 1908	do.....	Aug. 21, 1908	1 squirrel.
<b>Counties:</b>				
Alameda (exclusive of Oakland and Berkeley).....	Sept. 24, 1909	Oct. 17, 1909 <sup>1</sup>	July 12, 1915	287 squirrels, 1 wood rat.
Contra Costa.....	July 13, 1915	None.....	Mar. 1, 1916	1,598 squirrels.
Fresno.....	None.....	do.....	Oct. 27, 1911	1 squirrel.
Merced.....	do.....	do.....	July 12, 1911	5 squirrels.
Monterey.....	do.....	do.....	Apr. 3, 1916	27 squirrels.
San Benito.....	June 4, 1913	do.....	Apr. 4, 1916	51 squirrels.
San Joaquin.....	Sept. 18, 1911	do.....	Aug. 26, 1911	18 squirrels.
Santa Clara.....	Aug. 31, 1910	do.....	Mar. 29, 1916	26 squirrels.
San Luis Obispo.....	None.....	do.....	Jan. 29, 1910	1 squirrel.
Santa Cruz.....	do.....	do.....	May 17, 1910	3 squirrels.
Stanislaus.....	do.....	do.....	June 2, 1911	13 squirrels.

<sup>1</sup> Wood rat.

The work is being carried on in the following-named counties: Alameda, Contra Costa, San Francisco, Stanislaus, San Benito, Monterey, Santa Clara, Lassen, and Modoc.

## LOUISIANA—NEW ORLEANS—PLAGUE ERADICATION.

The following reports of plague eradication at New Orleans were received from Surg. Creel, of the United States Public Health Service, in charge of the work:

WEEK ENDED APRIL 22, 1916.

## OUTGOING QUARANTINE.

Vessels fumigated with cyanide gas.....	23
Cyanide used in cyanide-gas fumigation (pounds).....	921
Sulphuric acid used in cyanide-gas fumigation (pints).....	1,380
Clean bills of health issued.....	39
Foul bills of health issued.....	
<b>FIELD OPERATIONS.</b>	
Rodents trapped.....	6,530
Premises inspected.....	6,781
Notices served.....	702
Garbage cans installed.....	11

## BUILDINGS RAT PROOFED.

By elevation.....	129
By marginal concrete wall.....	113
By concrete floor and wall.....	164
By minor repairs.....	228
Total buildings rat proofed.....	643
Concrete laid (square yards).....	22,053
Premises, planking, and shed flooring removed.....	124
Buildings demolished.....	112
Total buildings rat proofed to date (abated).....	112,170



## LABORATORY OPERATIONS.

Rodents received by species:	
Mus rattus.....	133
Mus norvegicus.....	1,223
Mus alexandrinus.....	221
Mus musculus.....	5,203
Wood rats.....	91
Muskrats.....	5
Putrid (included in enumeration of species).....	225
Total rodents received at laboratory.....	6,576

WEEK ENDED APRIL 29, 1916.

## OUTGOING QUARANTINE.

Vessels fumigated with sulphur.....	7
Vessels fumigated with cyanide gas.....	13
Sulphur used (pounds).....	430
Cyanide used in cyanide-gas fumigation (pounds).....	912
Sulphuric acid used in cyanide-gas fumigation (pints).....	1,301
Clean bills of health issued.....	38
Foul bills of health issued.....	3

## FIELD OPERATIONS.

Rodents trapped.....	8,340
Premises inspected.....	8,352
Notices served.....	697
Garbage cans installed.....	8

## BUILDINGS RAT PROOFED.

By elevation.....	261
By marginal concrete wall.....	137
By concrete floor and wall.....	200
By minor repairs.....	383
Total buildings rat proofed.....	981
Concrete laid (square yards).....	7,072
Premises, planking, and shed flooring removed.....	106
Buildings demolished.....	125
Total buildings rat proofed to date (abated).....	113,151

## LABORATORY OPERATIONS—continued.

Rodents examined.....	1,905
Number of rats suspected of plague.....	136

## PLAGUE RAT.

Case No. 287:	
Address, s. s. Trevelyan, from Karachi, India, and Newcastle, England.	
Captured, Apr. 7, 1916.	
Diagnosis confirmed, Apr. 22, 1916.	
Treatment of ship: Deratization by fumigation.	
Plague rats confirmed.....	1

## LABORATORY OPERATIONS.

Rodents received by species:	
Mus rattus.....	176
Mus norvegicus.....	930
Mus alexandrinus.....	100
Mus musculus.....	6,432
Wood rats.....	87
Musk rats.....	2
Putrid (included in enumeration of species).....	135
Total rodents received at laboratory.....	7,787
Rodents examined.....	1,736
Number of rats suspected of plague.....	126
Plague rats confirmed.....	None.

## PLAGUE STATUS TO APRIL 29, 1916.

Last case of human plague, Sept. 8, 1915.	
Last case of rodent plague, Apr. 7, 1916.	
Total number of rodents captured to Apr. 29. 697,379	
Total number of rodents examined to Apr. 29.....	349,560
Total cases of rodent plague to Apr. 29, by species:	
Mus musculus.....	6
Mus rattus.....	18
Mus alexandrinus.....	13
Mus norvegicus.....	250
Total rodent cases to Apr. 29, 1916.....	287

## WASHINGTON—SEATTLE—PLAGUE ERADICATION.

The following report of plague-eradication work at Seattle for the week ended April 22, 1916, was received from Surg. Lloyd of the United States Public Health Service, in charge of the work:

## RAT PROOFING.

New buildings inspected.....	15
New buildings reinspected.....	60
Basements concreted, new buildings (17,280 square feet).....	20
Floors concreted, new buildings (22,775 square feet).....	13
Yards, etc., concreted, new buildings (4,280 square feet).....	4
Sidewalks concreted (square feet).....	12,775
Total concrete laid, new structures (square feet).....	57,110

## RAT PROOFING—continued.

New buildings elevated.....	5
New premises rat proofed, concrete.....	33
Old buildings inspected.....	4
Premises rat proofed, concrete, old buildings.....	4
Floors concreted, old buildings (6,725 square feet).....	4
Wooden floors removed, old buildings.....	4
Buildings razed.....	3

<sup>1</sup> Indicates the number of rodents the tissues of which were inoculated into guinea pigs. Most of them showed on necropsy only evidence of recent inflammatory process; practically none presented gross lesions characteristic of plague infection.

## LABORATORY AND RODENT OPERATIONS.

Dead rodents received.....	13
Rodents trapped and killed.....	333
Rodents recovered after fumigation.....	47
Total.....	393
Rodents examined for plague infection.....	218
Poison distributed, pounds.....	15
Bodies examined for plague infection.....	4

## CLASSIFICATION OF RODENTS.

Mus rattus.....	57
Mus alexandrinus.....	80
Mus norvegicus.....	181
Mus musculus.....	75

## WATER FRONT.

Vessels inspected and histories recorded.....	16
Vessels fumigated.....	3
Sulphur used, pounds.....	3,600
New rat guards installed.....	12
Defective rat guards repaired.....	10
Fumigation certificates issued.....	3
Port sanitary statements issued.....	36

The usual day and night patrol was maintained to enforce rat guarding and fending.

## MISCELLANEOUS WORK.

Rat-proofing notices sent to contractors, new buildings.....	25
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## MISCELLANEOUS WORK—continued.

Letters sent in re rat complaints.....	7
Inspection of medicine chests, fishing vessels.....	8

## RODENTS EXAMINED IN EVERETT.

Mus norvegicus trapped.....	64
Mus norvegicus found dead.....	2
Mus musculus trapped.....	2

Total.....	68
Rodents examined for plague infection.....	61

## RAT-PROOFING OPERATIONS IN EVERETT.

New buildings inspected.....	6
New buildings, concrete foundations.....	6
New buildings, basements concreted (1,125 square feet).....	2
New buildings, floors concreted (6,000 square feet).....	1
New buildings, yards concreted (532 square feet).....	3
Total concrete laid, new buildings, 7,657 square feet.....	

## RODENTS EXAMINED IN TACOMA.

Mus norvegicus trapped.....	87
Mus norvegicus found dead.....	5
Mus rattus trapped.....	2

Total.....	94
Rodents examined for plague infection.....	94

## HAWAII—PLAGUE PREVENTION.

The following reports of plague-prevention work in Hawaii were received from Surg. Trotter, of the United States Public Health Service:

## Honolulu.

## WEEK ENDED APRIL 15, 1916.

Total rats and mongoose taken.....	413	Average number of traps set daily.....	984
Rats trapped.....	410	Cost per rat destroyed.....	18½ cents.
Mongoose trapped.....	3	Last case rat plague, Aiea, 9 miles from Honolulu, Apr. 12, 1910.	
Examined microscopically.....	342	Last case human plague, Honolulu, July 12, 1910.	
Showing plague infection.....	None.	Last case rat plague Paauhau, Hawaii, Jan. 18, 1916.	
Classification of rats trapped:		Last case human plague, Paauhau plantation, Hawaii, Dec. 16, 1915.	
Mus alexandrinus.....	177		
Mus musculus.....	117		
Mus norvegicus.....	96		
Mus rattus.....	20		

## Hilo.

## WEEK ENDED APRIL 8, 1916.

Rats and mongoose taken.....	2,633	Classification of rats trapped and found dead:	
Rats trapped.....	2,594	Mus norvegicus.....	473
Rats found dead.....	4	Mus alexandrinus.....	392
Mongoose taken.....	35	Mus rattus.....	685
Rats and mongoose examined macroscopically.....	2,633	Mus musculus.....	1,048
Rats and mongoose examined microscopically.....	2	Last case of rat plague, Paauhau Sugar Co., Jan. 18, 1916.	
Rats and mongoose plague infected.....	None.	Last case of human plague, Paauhau Sugar Co. Dec. 16, 1915.	

**PORTO RICO--PLAGUE PREVENTION.**

The following table shows the number of rats and mice examined in Porto Rico for plague infection during the two weeks ended April 21, 1916. No plague infection was found:

Place.	Rats.	Mice.
San Juan.....	123	31
Puerta de Tierra.....	117	1
Santurce.....	194	3

# PREVALENCE OF DISEASE.

*No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.*

## UNITED STATES.

### ANTHRAX.

#### Massachusetts.

The Massachusetts State board of health reported that during the period from January 1 to May 4, 1916, 19 cases of anthrax had been notified in the State of Massachusetts. All of these cases occurred among tannery workers employed in four tanneries.

### CEREBROSPINAL MENINGITIS.

#### State Reports for March, 1916.

Place.	New cases reported.	Place.	New cases reported.
Kansas:		Kansas—Continued.	
Clark County.....	1	Wyandotte County—	
Crawford County.....	1	Kansas City.....	1
Montgomery County.....	1	Total.....	4
		Montana:	
		Sweet Grass County.....	1

#### City Reports for Week Ended Apr. 22, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.....	1	.....	Lincoln, Nebr.....	1	1
Boston, Mass.....	1	.....	Newark, N. J.....	1	1
Bridgeport, Conn.....	4	.....	New York, N. Y.....	9	3
Brockton, Mass.....	1	.....	Omaha, Nebr.....	.....	1
Buffalo, N. Y.....	1	1	Philadelphia, Pa.....	1	.....
Chicago, Ill.....	1	.....	Pittsburgh, Pa.....	2	2
Cleveland, Ohio.....	2	.....	San Diego, Cal.....	1	.....
Detroit, Mich.....	2	.....	Springfield, Ill.....	.....	1
Jersey City, N. J.....	.....	1	Springfield, Mass.....	1	1
Kansas City, Kans.....	1	.....	Wheeling, W. Va.....	.....	1
Kansas City, Mo.....	1	1	Wilmington, Del.....	2	.....

**DIPHTHERIA.****Alabama—Tuscaloosa.**

Assistant Epidemiologist Harrington reported by telegraph that during the week ended May 7, 1916, 176 cases of diphtheria had been notified among students at the University of Alabama at Tuscaloosa, making a total of 204 cases reported at that institution since the outbreak began April 24, 1916.

See also Diphtheria, measles, scarlet fever, and tuberculosis, page 1190.

**ERYSIPELAS.****City Reports for Week Ended Apr. 22, 1916.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Akron, Ohio.....	1	.....	Lincoln, Nebr.....	2	.....
Alameda, Cal.....	1	.....	Los Angeles, Cal.....	4	.....
Allentown, Pa.....	1	.....	Milwaukee, Wis.....	5	1
Ann Arbor, Mich.....	2	.....	Newark, N. J.....	4	.....
Baltimore, Md.....	.....	2	New Castle, Pa.....	2	.....
Binghamton, N. Y.....	3	.....	New Orleans, La.....	.....	2
Boston, Mass.....	.....	2	New York, N. Y.....	.....	5
Bridgport, Conn.....	2	.....	Omaha, Nebr.....	.....	1
Brockton, Mass.....	2	.....	Philadelphia, Pa.....	27	6
Buffalo, N. Y.....	5	1	Pittsburgh, Pa.....	10	4
Chelsea, Mass.....	.....	1	Portland, Oreg.....	1	.....
Chicago, Ill.....	42	6	Providence, R. I.....	.....	2
Cincinnati, Ohio.....	3	.....	Rochester, N. Y.....	6	.....
Cleveland, Ohio.....	11	2	St. Louis, Mo.....	11	1
Cumberland, Md.....	1	.....	San Francisco, Cal.....	6	.....
Detroit, Mich.....	9	2	Schenectady, N. Y.....	1	1
Elgin, Ill.....	1	.....	Toledo, Ohio.....	.....	1
Erie, Pa.....	2	.....	Trenton, N. J.....	.....	1
Kalamazoo, Mich.....	1	.....	Williamsport, Pa.....	1	.....
Kansas City, Mo.....	1	1	Zanesville, Ohio.....	1	.....

**MALARIA.****State Reports for March, 1916.**

During the month of March, 1916, 261 cases of malaria were notified in Arkansas and 21 cases were notified in Kansas.

**City Reports for Week Ended Apr. 22, 1916.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Birmingham, Ala.....	1	.....	Newton, Mass.....	1	.....
Boston, Mass.....	.....	1	Pasadena, Cal.....	1	.....
Chicago, Ill.....	.....	1	Richmond, Va.....	1	.....
New Orleans, La.....	1	1	Wilmington, N. C.....	3	.....

**MEASLES.**

See Diphtheria, measles, scarlet fever, and tuberculosis, p. 1190.

**PELLAGRA.****State Reports for March, 1916.**

During the month of March, 1916, 26 cases of pellagra were notified in Arkansas, and 2 cases were notified in Kansas.

**City Reports for Week Ended Apr. 22, 1916.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Chattanooga, Tenn.....	1	.....	Oakland, Cal.....	.....	2
New York, N. Y.....	.....	1	Sacramento, Cal.....	.....	1
Northampton, Mass.....	1	.....			

**PNEUMONIA.****City Reports for Week Ended Apr. 22, 1916.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Allentown, Pa.....	1	.....	Morristown, N. J.....	2	1
Ann Arbor, Mich.....	1	.....	Newark, N. J.....	30	6
Binghamton, N. Y.....	5	2	New Castle, Pa.....	2	.....
Chattanooga, Tenn.....	1	2	Norfolk, Va.....	2	2
Chicago, Ill.....	183	81	Philadelphia, Pa.....	79	40
Cleveland, Ohio.....	55	19	Pittsburgh, Pa.....	37	26
Detroit, Mich.....	9	22	Reading, Pa.....	1	1
Duluth, Minn.....	3	2	Rochester, N. Y.....	3	.....
Grand Rapids, Mich.....	3	.....	San Francisco, Cal.....	13	8
Harrisburg, Pa.....	2	4	Schenectady, N. Y.....	1	1
Johnstown, Pa.....	1	.....	Springfield, Ohio.....	2	1
Kalamazoo, Mich.....	1	.....	Steeltown, Pa.....	1	1
Kansas City, Mo.....	3	12	Stockton, Cal.....	1	2
Los Angeles, Cal.....	6	5	Toledo, Ohio.....	2	5
Manchester, N. H.....	4	4	Wichita, Kans.....	4	.....

**POLIOMYELITIS (INFANTILE PARALYSIS).****Kansas Report for March, 1916.**

During the month of March, 1916, one case of poliomyelitis was notified in Ottawa County, Kans.

**City Reports for Week Ended Apr. 22, 1916.**

During the week ended April 22, 1916, poliomyelitis was notified in cities as follows: Boston, Mass., 1 death; Los Angeles, Cal., 1 case; New York, N. Y., 3 cases.

**RABIES.****Idaho—Boise—Rabies in Animals.**

Dr. Ralph Falk, secretary of the State board of health of Idaho, reported by telegraph May 9, 1916, that a case of rabies in a dog had been reported in Boise, Ada County, Idaho.

**RABIES—Continued.****Utah—Boxelder County—Rabies in Animals.**

Dr. T. B. Beatty, secretary of the State board of health of Utah, reported by telegraph May 8, 1916, that a child had been bitten by a rabid coyote in Boxelder County, Utah, that cases of rabies among coyotes were reported almost daily, and that within the week preceding the date of the report deaths from rabies had occurred among cattle, hogs, and other domestic animals in the same county.

**ROCKY MOUNTAIN SPOTTED FEVER.****Montana Report for March, 1916.**

During the month of March, 1916, cases of Rocky Mountain spotted fever were notified in the State of Montana as follows: Missoula County 1, Musselshell County 1, Ravalli County 1.

**SCARLET FEVER.****North Carolina—Winston-Salem.**

During the period from April 1 to May 8, 1916, 113 cases of scarlet fever were reported at Winston-Salem, N. C. Two deaths within the city and one outside the city limits have been registered.

See also Diphtheria, measles, scarlet fever, and tuberculosis, p. 1190.

**SMALLPOX.****Delaware—Wilmington.**

Passed Asst. Surg. Mullan reported May 8, 1916, that one new case of smallpox had been notified at Wilmington, Del., making a total of 30 cases reported since April 8, 1916.

**Minnesota.**

Collaborating Epidemiologist Bracken reported by telegraph that during the week ended May 6, 1916, one new focus of smallpox infection was reported in the State of Minnesota, one case of the disease having been notified in Leslie Township, Todd County.

**Porto Rico.**

Surg. King reported by telegraph May 6, 1916, that cases of smallpox had been notified in Porto Rico as follows: San Juan 26, Trujillo Alto 16, Rio Piedras 1, Arroyo 1.

## SMALLPOX—Continued.

## Kansas Report for March, 1916.

Place.	New cases reported.	Deaths.	Vaccination history of cases.			
			Number vaccinated within 7 years preceding attack.	Number last vaccinated more than 7 years preceding attack.	Number never successfully vaccinated.	Vaccination history not obtained or uncertain.
<b>Kansas:</b>						
Allen County.....	7				7	
Anderson County.....	1				1	
Atchison County—						
Atchison.....	2					2
Barton County.....	1					1
Bourbon County—						
Fort Scott.....	1				1	
Brown County.....	5			1	4	
Butler County.....	7					7
Cherokee County.....	4				3	1
Clay County.....	18			1	15	2
Cloud County.....	1					1
Coffey County.....	1				1	
Crawford County.....	35			3	14	18
Pittsburg.....	4				2	2
Decatur County.....	1					1
Dickinson County.....	6				2	4
Douglas County.....	1				1	
Ford County.....	9				7	2
Harper County.....	4				2	2
Harvey County.....	2					2
Jackson County.....	1					1
Jefferson County.....	14				8	6
Jewell County.....	12				9	3
Kingman County.....	9				5	4
Labette County.....	23					23
Pursons.....	5					5
Lane County.....	1				1	
Lyon County.....	3					3
Miami County.....	1				1	
Mitchell County.....	2				2	
Montgomery County.....	20			1	17	2
Coffeyville.....	2				2	
Morris County.....	3				3	
Memaha County.....	1					1
Neosho County.....	5				2	3
Norton County.....	5				5	
Osborne County.....	21				21	
Phillips County.....	9				4	5
Reno County.....	7				7	
Hutchinson.....	3			1		2
Republic County.....	4			2	2	
Rooks County.....	5					5
Rush County.....	1				1	
Saline County.....	2				1	1
Sedgewick County.....	4					4
Wichita.....	27					27
Smith County.....	7				3	4
Stafford County.....	1			1		
Trego County.....	5				3	2
Wabamsee County.....	2					2
Washington County.....	5			1	2	2
Wandotte County.....	1				1	
Kansas City.....	14					14
<b>Total.....</b>	<b>338</b>			<b>11</b>	<b>163</b>	<b>164</b>



**SMALLPOX—Continued.****Miscellaneous State Reports.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Oregon (Feb. 1-29):			Arkansas (Mar. 1-31) Contd.:		
Columbia County.....	7	.....	Counties—Contd.		
Klamath County.....	1	.....	Lawrence.....	15	.....
Linn County.....	1	.....	Logan.....	40	.....
Marion County.....	4	.....	Ouachita.....	1	.....
Multnomah County—			Phillips.....	26	.....
Portland.....	2	.....	Polk.....	10	.....
Total.....	15	.....	Pope.....	1	.....
Arkansas (Mar. 1-31):			Pulaski.....	3	.....
Counties—			Saline.....	8	.....
Carroll.....	18	.....	St. Francis.....	3	.....
Faulkner.....	3	.....	Union.....	2	.....
Hempstead.....	7	.....	Washington.....	1	.....
Jackson.....	23	.....	Total.....	161	.....

**City Reports for Week Ended Apr. 22, 1916.**

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Charleston, S. C.....	2	.....	Los Angeles, Cal.....	1	.....
Coffeyville, Kans.....	1	.....	New Orleans, La.....	2	.....
Danville, Ill.....	1	.....	Oklahoma, Okla.....	1	.....
Davenport, Iowa.....	9	.....	Omaha, Neb.....	1	.....
Detroit, Mich.....	21	.....	Portland, Oreg.....	2	.....
Dubuque, Iowa.....	2	.....	Roanoke, Va.....	1	.....
Duluth, Minn.....	2	.....	Rock Island, Ill.....	2	.....
El Paso, Tex.....	2	.....	Sioux City, Iowa.....	2	.....
Evansville, Ind.....	5	.....	Springfield, Ill.....	13	.....
Galveston, Tex.....	2	.....	Superior, Wis.....	1	.....
Grand Rapids, Mich.....	1	.....	Syracuse, N. Y.....	1	.....
Kansas City, Kans.....	1	.....	Wichita, Kans.....	2	.....
Kansas City, Mo.....	2	.....	Wilmington, Del.....	4	.....
Little Rock, Ark.....	3	.....			

**TETANUS.****City Reports for Week Ended Apr. 22, 1916.**

During the week ended April 22, 1916, tetanus was notified in cities as follows: Lancaster, Pa., 1 case; New Orleans, La., 1 death.

**TUBERCULOSIS.**

See Diphtheria, measles, scarlet fever, and tuberculosis, page 1190.

**TYPHOID FEVER.****State Reports for March, 1916.**

Place.	New cases reported.	Place.	New cases reported.
Arkansas:		Kansas:	
Clay County.....	1	Allen County.....	1
Columbia County.....	2	Atchison County—	
Logan County.....	1	Atchison.....	1
Newton County.....	1	Brown County.....	1
Phillips County.....	2	Butler County.....	4
Pope County.....	1	Cherokee County.....	17
Pulaski County.....	2	Coffey County.....	1
Saline County.....	1	Cowley County.....	3
St. Francis County.....	1	Dickinson County.....	5
Washington County.....	11	Edwards County.....	2
Total.....	23	Gove County.....	1
		Greenwood County.....	1
		Harvey County.....	1

## TYPHOID FEVER—Continued.

## State Reports for March, 1916—Continued.

Place.	New cases reported.	Place.	New cases reported.
Kansas—Continued.		Montana:	
Johnson County.....	1	Blaine County.....	3
Lyon County.....	1	Cascade County.....	
Marshall County.....	1	Great Falls.....	3
Meade County.....	5	Chouteau County.....	4
Montgomery County.....	6	Dawson County.....	2
Neosho County.....	1	Deerlodge County.....	
Ness County.....	1	Anaconda.....	1
Pawnee County.....	1	Flathead County.....	1
Riley County.....	1	Lewis and Clark County—	
Sedgwick County—		Helena.....	1
Wichita.....	3	Yellowstone County.....	3
Smith County.....	1		
Stafford County.....	1	Total.....	18
Woodson County.....	4		
Wyandotte County.....	1		
Kansas City.....	4		
Total.....	70		

## Oregon Report for February, 1916.

Place.	New cases reported.	Place.	New cases reported.
Oregon:		Oregon—Continued.	
Benton County.....	1	Multnomah County—	
Clackamas County.....	1	Portland.....	9
Lane County.....	2	Total.....	13

## City Reports for Week Ended Apr. 22, 1916.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Baltimore, Md.....	10	1	Mobile, Ala.....	2	
Birmingham, Ala.....	3		Newark, N. J.....	1	
Bridgeport, Conn.....	1	1	New Castle, Pa.....	2	
Buffalo, N. Y.....	2		New Orleans, La.....	11	2
Cambridge, Mass.....		1	New York, N. Y.....	32	5
Camden, N. J.....	1		Niagara Falls, N. Y.....	1	1
Canton, Ohio.....	3		North Adams, Mass.....	1	1
Chicago, Ill.....	9	4	Oakland, Cal.....	1	
Cincinnati, Ohio.....	2		Philadelphia, Pa.....	9	3
Cleveland, Ohio.....	4	2	Pittsburgh, Pa.....	1	
Covington, Ky.....	1		Providence, R. I.....	3	
Danville, Ill.....	2		Racine, Wis.....	1	
Detroit, Mich.....	8	1	Rochester, N. Y.....	8	1
El Paso, Tex.....	1		Rock Island, Ill.....	1	
Fall River, Mass.....	1		Saginaw, Mich.....	4	1
Galesburg, Ill.....		1	St. Louis, Mo.....	5	
Galveston, Tex.....	7		San Francisco, Cal.....	3	1
Grand Rapids, Mich.....	3		Schenectady, N. Y.....	2	1
Harrisburg, Pa.....	1	1	South Bend, Ind.....		1
Hoboken, N. J.....	1		Springfield, Ohio.....	4	
Jersey City, N. J.....	1		Syracuse, N. Y.....	1	
Johnstown, Pa.....	1		Tacoma, Wash.....	1	
Kansas City, Mo.....	1		Toledo, Ohio.....		1
Kenosha, Wis.....	1		Trenton, N. J.....	2	
Lawrence, Mass.....	1		Troy, N. Y.....		1
Little Rock, Ark.....	1		Washington, D. C.....	3	1
Los Angeles, Cal.....	2		Wilkes-Barre, Pa.....	1	
Lowell, Mass.....		1	Wilmington, Del.....	1	1
Milwaukee, Wis.....	4				

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

## State Reports for March, 1916.

During the month of March, 1916, 14 cases of diphtheria, 372 cases of measles, and 8 cases of scarlet fever were reported in Arkansas; 112 cases of diphtheria, 3,014 cases of measles, and 327 cases of scarlet fever were reported in Kansas; 16 cases of diphtheria, 773 cases of measles, and 30 cases of scarlet fever were reported in Montana.

## Oregon Report for February, 1916.

During the month of February, 1916, 28 cases of diphtheria, 67 cases of measles, and 27 cases of scarlet fever were reported in the State of Oregon.

## City Reports for Week Ended Apr. 22, 1916.

City.	Population as of July 1, 1915 (estimated by U. S. Census Bureau).	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tubercu- losis.		
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	
Over 500,000 inhabitants:											
Baltimore, Md.	584,605	222	7	.....	274	2	31	1	28	21	
Boston, Mass.	745,139	234	71	4	165	3	42	.....	54	31	
Chicago, Ill.	2,447,015	691	97	9	346	9	218	3	357	88	
Cleveland, Ohio.	656,975	213	15	2	129	2	20	1	45	23	
Detroit, Mich.	554,717	261	60	4	86	7	53	2	40	25	
New York, N. Y.	5,468,190	1,515	313	22	1,019	19	224	2	409	186	
Philadelphia, Pa.	1,683,664	522	56	15	403	8	49	4	141	53	
Pittsburgh, Pa.	571,984	206	19	.....	176	3	12	1	21	7	
St. Louis, Mo.	745,988	196	58	.....	317	8	37	2	39	17	
From 300,000 to 500,000 inhabit- ants:											
Buffalo, N. Y.	461,335	201	7	.....	45	2	10	2	33	20	
Cincinnati, Ohio	406,706	141	10	.....	388	2	11	.....	40	24	
Jersey City, N. J.	300,133	85	14	.....	101	1	25	.....	26	7	
Los Angeles, Cal.	465,367	117	6	1	20	.....	2	.....	43	21	
Milwaukee, Wis.	428,062	125	24	4	229	3	55	4	20	6	
Newark, N. J.	399,000	.....	19	1	513	5	28	.....	44	19	
New Orleans, La.	366,484	129	10	.....	9	.....	1	.....	20	18	
San Francisco, Cal.	416,912	.....	31	2	2	.....	21	.....	.....	8	
Washington, D. C.	358,679	147	4	.....	139	.....	8	.....	19	15	
From 200,000 to 300,000 inhabit- ants:											
Columbus, Ohio.	209,722	74	1	.....	101	4	5	.....	11	3	
Kansas City, Mo.	289,879	.....	15	4	263	1	31	5	2	12	
Portland, Oreg.	272,833	40	5	.....	7	.....	6	.....	6	4	
Providence, R. I.	250,025	.....	11	1	65	1	24	.....	.....	10	
Rochester, N. Y.	250,747	76	.....	1	64	.....	6	.....	4	5	
From 100,000 to 200,000 inhabit- ants:											
Birmingham, Ala.	174,108	41	.....	.....	3	.....	1	.....	11	7	
Bridgeport, Conn.	118,434	.....	8	1	8	.....	.....	.....	4	3	
Cambridge, Mass.	111,669	32	4	.....	12	1	4	.....	8	3	
Camden, N. J.	104,349	.....	4	.....	1	.....	2	.....	10	.....	
Fall River, Mass.	126,904	45	4	1	8	2	4	.....	7	2	
Grand Rapids, Mich.	125,759	30	2	.....	31	.....	20	.....	12	2	
Hartford, Conn.	108,969	47	7	1	97	3	2	.....	7	2	
Lowell, Mass.	112,121	35	2	.....	26	.....	2	.....	3	8	
Lynn, Mass.	100,316	28	6	1	16	.....	6	.....	3	4	
Nashville, Tenn.	115,978	36	.....	.....	.....	.....	1	.....	7	4	
New Bedford, Mass.	114,694	46	2	.....	11	.....	2	.....	8	7	
New Haven, Conn.	147,095	.....	2	.....	8	.....	11	.....	7	2	
Oakland, Cal.	190,803	.....	7	1	2	.....	7	.....	6	5	
Omaha, Nebr.	135,455	59	1	2	11	.....	49	4	.....	3	
Reading, Pa.	105,091	31	.....	.....	12	.....	9	.....	.....	1	
Richmond, Va.	154,674	82	2	.....	825	4	4	.....	3	13	
Springfield, Mass.	103,216	25	2	1	104	1	8	.....	4	2	
Syracuse, N. Y.	152,534	41	7	.....	5	.....	4	.....	5	2	

1 Population Apr. 15, 1910; no estimate made.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

## City Reports for Week Ended April 22, 1916—Continued.

City.	Population as of July 1, 1915 (esti- mated by U. S. Census Bureau).	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tubercu- losis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 100,000 to 200,000 inhab- itants—Continued.										
Tacoma, Wash.	108,094	74	4	2	2	2	3	1	12	4
Toledo, Ohio.	187,840	51	4	3	266	5	19	8	4	4
Trenton, N. J.	109,212	54	4	3	43	2	4	9	3	3
Worcester, Mass.	160,523	54	8							
From 50,000 to 100,000 inhabit- ants:										
Akron, Ohio.	82,958	50	3		65	6	2	1	1	1
Allentown, Pa.	61,901	24	1		5					
Atlantic City, N. J.	55,806	9			11		2	2		
Bayonne, N. J.	67,582	19	3	1	18		4	4	4	
Berkeley, Cal.	54,879	11			1		1	2		
Binghamton, N. Y.	53,082	19	3		49					
Brockton, Mass.	65,746	21	1		196	1		2		1
Canton, Ohio.	59,139	11	1		8	1	3	1		6
Charleston, S. C.	60,427	32	1		19					1
Chattanooga, Tenn.	58,576	18	5	1			16	5	4	2
Covington, Ky.	56,520	11	1		10		1	2		4
Duluth, Minn.	91,913	14	3		34		2	4		1
Elizabeth, N. J.	84,550	28	7	1	13		5	10		1
El Paso, Tex.	51,936	32	3		13					4
Eric, Pa.	73,798	24	2		147			7		
Evansville, Ind.	72,125	19	1				1			3
Fort Wayne, Ind.	74,352	22			45		1			3
Harrisburg, Pa.	70,754	31			243					3
Hoboken, N. J.	76,104	19	7		25		3	8		2
Johnstown, Pa.	66,585	19	1		57		1	2		1
Kansas City, Kans.	96,854	3	3		113		7	4		2
Lancaster, Pa.	50,269	1	7		96			3		
Lawrence, Mass.	98,197	22	7	1	16	1	3	5	4	
Little Rock, Ark.	55,158							1		
Malden, Mass.	50,067	9	6		5		3	1		1
Manchester, N. H.	76,959	32	1		74	1	1	4		4
Mobile, Ala.	56,536	14						1		2
New Britain, Conn.	52,203		1		33			1		2
Norfolk, Va.	88,076				38		1	2		1
Oklahoma, Okla.	88,158	9	3		4		1			
Passaic, N. J.	69,010	14			9				4	2
Pawtucket, R. I.	58,156	24	2	1	4		2			2
Rockford, Ill.	53,761	17	3		32		4	3		2
Sacramento, Cal.	64,806	13						3		
Saginaw, Mich.	54,815	16	3		91		4	7		5
San Diego, Cal.	51,115	25			56					2
Schenectady, N. Y.	95,265	17	1		6		13	6		1
Sioux City, Iowa	55,538		2				1			
Somerville, Mass.	85,460	24	3		1		3	3		4
South Bend, Ind.	67,030	18			42		3			3
Springfield, Ill.	59,468		2		18					1
Springfield, Ohio.	50,804	13	1		70		5			4
Troy, N. Y.	77,738						10			2
Wichita, Kans.	67,847				5		2		3	1
Wilkes-Barre, Pa.	75,218	27	3		7		3		1	1
Wilmington, Del.	93,161		4		60		3			1
From 25,000 to 50,000 inhabitants:										
Alameda, Cal.	27,031	3								1
Brookline, Mass.	31,934	7	1		3			2		
Butte, Mont.	42,918	21			108			16		1
Chelsea, Mass.	32,452	14	3		4		1	2		1
Chicopee, Mass.	28,688	6	3		6		1	3		1
Cumberland, Md.	25,564	6	2		48			2		
Danville, Ill.	31,554	16	1		46	1		5		1
Davenport, Iowa.	47,127		3				4			
Dubuque, Iowa.	39,650				1		3			
East Orange, N. J.	41,155	6	1		35		2	2		
Elgin, Ill.	27,844	5			1		5			
Everett, Mass.	38,507		1				2	7		1
Everett, Wash.	33,767	4			5					
Fitchburg, Mass.	41,144	11	4		30				2	1
Galveston, Tex.	41,076	15	1		13	1	1	2		3
Haverhill, Mass.	47,774		5				1	1		

\* Population Apr. 15, 1910; no estimate made.

## DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Contd.

City Reports for Week Ended April 22, 1916—Continued.

City.	Population as of July 1, 1915 (esti- mated by U. S. Census Bureau).	Total deaths from all causes.	Diph- theria.		Measles.		Scarlet fever.		Tubercu- losis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
From 25,000 to 50,000 inhab- itants—Continued.										
Kalamazoo, Mich.	47,364	14	1		8				3	1
Kenosha, Wis.	30,319	4			6		1			
Knoxville, Tenn.	38,300				37					
La Crosse, Wis.	31,522	14	7	1						
Lexington, Ky.	39,703	13			7				5	2
Lincoln, Nebr.	46,028	16	2		7		2			1
Lorain, Ohio	35,662				11		1			
Lynchburg, Va.	32,385	13			179	1				1
Madison, Wis.	30,084				2				2	
Medford, Mass.	25,737	8					5			1
Montclair, N. J.	25,550	8			6				5	1
Nashua, N. H.	27,114				2					
New Castle, Pa.	40,351				41		2			
Newport, Ky.	31,722	9					2		3	3
Newport, R. I.	29,631	8	2		13					
Newton, Mass.	43,085	14	2		20		2		1	1
Niagara Falls, N. Y.	36,240	24	1		142	1			3	
Norristown, Pa.	30,833	12			54	1				1
Ogden, Utah	30,466	6					3			
Orange, N. J.	32,524				60	1	2		1	1
Pasadena, Cal.	43,859	12			7				2	3
Perth Amboy, N. J.	39,725		5						2	
Pittsfield, Mass.	37,580	9	2				1		3	
Portsmouth, Va.	38,610	14	2		8					1
Racine, Wis.	45,507	13	1		24		6		2	1
Roanoke, Va.	41,929	19	1		22				2	1
Rock Island, Ill.	27,961	8			2		1			
San Jose, Cal.	37,994	14					1			
Steubenville, Ohio	26,631	7	1	1	27					
Stockton, Cal.	34,508	8							1	
Superior, Wis.	45,285	5					4			
Taunton, Mass.	35,957	14	1				2		1	1
Waltham, Mass.	30,129	7					4			3
West Hoboken, N. J.	41,893	3	3				5		3	
Wheeling, W. Va.	43,097	15			42	1				
Williamsport, Pa.	33,495	11	1		2				2	
Wilmington, N. C.	28,264	11							1	
Zanesville, Ohio	30,406	10			5					1
From 10,000 to 25,000 inhabitants:										
Ann Arbor, Mich.	14,979	4	1		1				2	
Braddock, Pa.	21,310				1				1	
Cairo, Ill.	15,593	7			2					
Clinton, Mass.	13,075	3			1					1
Coffeyville, Kans.	16,765		1		4					
Concord, N. H.	22,480	9			15					1
Galesburg, Ill.	23,923	10	1		3					
Harrison, N. J.	16,555				21		1			
Kearny, N. J.	22,753	8	2		7				2	1
Kokomo, Ind.	20,312	10	1				1			2
Marinette, Wis.	14,610				2					1
Melrose, Mass.	17,166	1								
Morristown, N. J.	13,158	3			21		2			
Nanticoke, Pa.	22,441	2	1							
Newburyport, Mass.	15,195	10								
New London, Conn.	20,771	13	1	1			2		1	2
North Adams, Mass.	22,019	4	2						1	1
Northampton, Mass.	19,846	6			1		3			
Plainfield, N. J.	23,280	10			4		3		5	
Rutland, Vt.	14,624	6			2					
Saratoga Springs, N. Y.	12,842		1							
Steelton, Pa.	15,337				137				4	
Wilkinsburg, Pa.	22,361	10			21		3			
Woburn, Mass.	15,862	1								

<sup>1</sup> Population Apr. 15, 1910; no estimate made.

# FOREIGN.

## AUSTRIA-HUNGARY.

### Quarantine Against Cattaro—Fiume.

By order of the maritime service of Hungary, quarantine measures against cholera were directed on April 1 to be put in force at Fiume against arrivals from Cattaro, Province of Dalmatia.

## CHINA.

### Examination of Rats—Shanghai.

During the two weeks ended April 1, 1916, 264 rats were examined at Shanghai. No plague infection was found.

## CUBA.

### Communicable Diseases—Habana.

Communicable diseases were notified at Habana during the 10-day period ended April 20, 1916, as follows:

Disease.	New cases.	Deaths.	Remain- ing under treatment Apr. 20, 1916.
Cerebrospinal meningitis.....	1	1	8
Diphtheria.....	7	2	244
Leprosy.....			5
Malaria.....	5		12
Measles.....	23		3
Paratyphoid fever.....	1		4
Scarlet fever.....	2		27
Typhoid fever.....	7		9
Varicella.....	10		

## CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.

### Reports Received During Week Ended May 12, 1916.<sup>1</sup>

#### CHOLERA.

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary: Austria— Cattaro.....	Apr. 2.....			Present.
India: Calcutta.....	Mar. 5-11.....		42	
Siam: Bangkok.....	Feb. 20-26.....	1	1	

<sup>1</sup> From medical officers of the Public Health Service, American consuls, and other sources.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—** Continued.

## **Reports Received During Week Ended May 12, 1916—Continued.**

### **PLAGUE.**

Place.	Date.	Cases.	Deaths.	Remarks.
India:				Mar. 5-11, 1916: Cases, 12,376; deaths, 10,014.
Calcutta.....	Mar. 5-11.....		2	
Indo-China:				
Saigon.....	Feb. 29-Mar. 19...	18	6	
Siam:				
Bankok.....	Feb. 20-Mar. 14...	51	30	

### **SMALLPOX.**

China:				
Tientsin.....	Mar. 19-25.....	6	5	
France:				
Marseille.....	Mar. 1-31.....		1	
Great Britain:				
South Shields.....	Mar. 26-Apr. 1....	1		
India:				
Calcutta.....	Mar. 5-11.....		5	
Indo-China:				
Saigon.....	Feb. 28-Mar. 19...	4		
Mexico:				
Aguascalientes.....	Apr. 17-23.....		21	
Mazatlan.....	Apr. 12-25.....		9	
Vera Cruz.....	Apr. 10-16.....	4	1	
Netherlands:				
Amsterdam.....	Mar. 26-Apr. 8....	13		
Porto Rico:				
Arroyo.....	May 6.....	1		
Rio Piedras.....	do.....	1		
San Juan.....	do.....	26		
Trujillo Alto.....	do.....	16		
Russia:				
Petrograd.....	Feb. 27-Mar. 4....	22	6	

### **TYPHUS FEVER.**

China:				
Tientsin.....	Mar. 19-25.....	1		
Japan:				
Tokyo.....	Mar. 18-Apr. 2....	35		Jan. 1-Apr. 2, 1916: Cases, 190.
Mexico:				
Aguascalientes.....	Apr. 17-23.....		8	
Vera Cruz.....	Apr. 10-16.....		1	
Russia:				
Petrograd.....	Feb. 27-Mar. 4....	9	2	

## **Reports Received from Jan. 1 to May 5, 1916.**

### **CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
Austria-Hungary.....				Total, Oct. 25, 1915-Jan. 2, 1916: Cases, 412; deaths, 165. Jan. 3-Feb. 5, 1916: Cases, 133; deaths, 47.
Austria.....	Nov. 7-Dec. 18...	209	66	
Do.....	Jan. 1-Feb. 12....	144	49	
Bosnia-Herzegovina.....	Dec. 23-Jan. 3....	8	6	
Do.....	Jan. 9-Feb. 12....	12	6	
Croatia-Slavonia.....	Oct. 18-Dec. 20...	247	105	Nov. 13-Dec. 10, 1915: Cases, 675; deaths, 276. In a prison camp.
Do.....	Jan. 3-31.....	138	126	
Hungary.....	Oct. 18-Jan. 2....	339	197	
Do.....	Jan. 10-16.....	2	2	
Borneo:				
Putatan.....	Oct. 17-23.....	2		
Greece:				
Corfu.....	Mar. 9-28.....		30	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—** Continued.

**Reports Received from Jan. 1 to May 5, 1916—Continued.**

## **CHOLERA—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>India:</b>				
Bassein.....	Nov. 23-Jan. 1.....		29	
Do.....	Jan. 2-Mar. 4.....		28	
Bombay.....	Jan. 16-Mar. 18.....	3	2	
Calcutta.....	Oct. 31-Jan. 1.....		139	
Do.....	Jan. 2-Mar. 4.....		127	
Hezrada.....	Oct. 7-Nov. 27.....		3	
Do.....	Feb. 20-26.....		1	
Madras.....	Nov. 7-Dec. 4.....	5		
Do.....	Jan. 2-Feb. 26.....	29	23	
Madras Presidency.....	Nov. 26.....		12	
Mandalay.....	Oct. 24-Dec. 18.....		46	
Mergui.....	Oct. 23-Jan. 1.....		12	
Do.....	Jan. 2-Feb. 19.....		22	
Myingyan.....	Oct. 19-Dec. 25.....		15	
Pakkoku.....	Oct. 10-Nov. 6.....		45	
Pegu.....	Jan. 16-Feb. 19.....		4	
Prome.....	Nov. 14-Jan. 1.....		106	
Rangoon.....	Oct. 31-Jan. 1.....	88	69	
Do.....	Jan. 2-Mar. 4.....	56	41	
Tavoy.....	Dec. 5-Jan. 1.....		18	
Do.....	Jan. 2-Feb. 5.....		11	
Toungoo.....	Oct. 7-Dec. 11.....		47	
Yenangyaung.....	Nov. 2.....	1	1	American.
<b>Indo-China:</b>				
Anam Province.....	Sept. 1-30.....	127	92	Sept. 1-30. 1915: Cases, 813; deaths, 549.
Cambodia Province.....	do.....	1	1	
Cochin China Province.....	do.....	15	8	
Saigon.....	Oct. 25-Nov. 28.....	4	3	
Do.....	Jan. 3-23.....	3	1	
Tonkin Province.....	Sept. 1-30.....	670	448	
<b>Java:</b>				
Batavia.....	Oct. 26-Dec. 27.....	55	36	Oct. 15-Dec. 6, 1915: Cases, 86; deaths, 53.
Do.....	Jan. 11-17.....	2	1	
Brebes.....	Oct. 15-Dec. 9.....	10	10	Apr. 14, 1916: Epidemic..
Choribon.....	Dec. 28-Jan. 3.....	1		Vicinity of Batavia.
<b>Persia:</b>				
Enzeli.....	Nov. 6-12.....		10	Nov. 22, 1915: Still present. Present.
Do.....	Feb. 6-Mar. 2.....		11	
Essaleme.....	Nov. 28.....		7	
Gazian.....	Nov. 6-12.....		4	
Karkhan-Roud.....	Nov. 28.....		38	And in vicinity.
Kazvin.....	Nov. 27.....		10	
Resht.....	Nov. 24.....			And vicinity: Present.
Do.....	Feb. 6.....			Present.
<b>Philippine Islands:</b>				
Manila.....	Dec. 26-Jan. 1.....	1	1	
Do.....	Jan. 2-Mar. 4.....	25	12	
<b>Russia:</b>				
Moscow.....	Nov. 14-27.....	4	1	
<b>Siam:</b>				
Bangkok.....	Jan. 9-Feb. 19.....	2	3	
<b>Turkey in Asia:</b>				
Trebizond.....	Dec. 2-4.....	15	10	Dec. 1-31, 1915: Present.
Do.....	Jan. 8.....			Present.

## **PLAGUE.**

<b>Brazil:</b>				
Bahia.....	Nov. 21-Feb. 19.....	18	11	
<b>Ceylon:</b>				
Colombo.....	Oct. 24-Dec. 25.....	37	31	
Do.....	Jan. 2-Mar. 4.....	36	35	
<b>China:</b>				
Hongkong.....	Nov. 7-Jan. 1.....	4	4	
Do.....	Jan. 2-Feb. 26.....	3	3	
<b>Ecuador:</b>				
Guayaquil.....	Nov. 1-30.....	1	1	
<b>Egypt:</b>				
Alexandria.....	Dec. 23-31.....	2		Jan. 1-Dec. 31, 1915: Cases, 285; deaths, 120. Jan. 1-Mar. 30, 1916: Cases, 312; deaths, 146.
Assiout Province.....	Dec. 17-31.....	4	2	
Do.....	Jan. 2-Mar. 30.....	147	61	
Assouan Province.....	Mar. 17-30.....	2	1	



# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—** Continued.

**Reports Received from Jan. 1 to May 5, 1916—Continued.**

## **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Egypt—Continued.</b>				
Beni-Souef Province.....	Mar. 23-30.....	15	3	
Fayoum Province.....	Jan. 23-Mar. 30....	137	53	
Garbieh Province.....	Dec. 6-28.....	6	48	
Do.....	Jan. 10-Feb. 13....	2	1	
Girgeh Province.....	Feb. 18-Mar. 22....	7	2	
Gizeh Province.....	Dec. 27.....	1	1	
Do.....	Mar. 5.....	1	-----	
Keneh Province.....	Feb. 15-22.....	4	3	
Minieh Province.....	Nov. 27-Dec. 31....	13	9	
Do.....	Jan. 1-Mar. 30....	51	24	
Port Said.....	Aug. 13-Nov. 1....	3	2	
Suez.....	Jan. 10.....	1	-----	On s. s. Syria from Bombay.
<b>Greece:</b>				
Athens.....	Dec. 8-20.....	-----	1	
Piræus.....	Jan. 29.....	7	5	
Syra Island.....	Jan. 16.....	16	10	
<b>India.</b>				
Akyab.....	Jan. 16-29.....	-----	1	Oct. 31, 1915-Jan. 1, 1916: Cases, 40,533; deaths, 34,225. Jan. 2-
Bassein.....	Dec. 26-Jan. 1.....	-----	3	Mar. 4: Cases, 65,312; deaths, 51,526.
Do.....	Jan. 2-Mar. 4.....	-----	49	
Bombay.....	Nov. 9-Jan. 1.....	53	51	
Do.....	Jan. 2-Mar. 18....	563	332	
Calcutta.....	Nov. 21-27.....	-----	1	
Do.....	Jan. 2-Mar. 4.....	-----	5	
Henzada.....	Dec. 26-Jan. 1.....	-----	1	
Do.....	Jan. 2-Mar. 4.....	-----	205	
Karachi.....	Nov. 7-20.....	2	2	
Madras.....	Jan. 2-8.....	1	-----	
Madras Presidency.....	Oct. 16-Nov. 5.....	-----	118	Madras Presidency, Aug. 1, 1898,
Do.....	Nov. 12-Jan. 1.....	1,839	1,288	to June 30, 1915: Cases, 141,356;
Do.....	Jan. 9-Mar. 18....	4,545	3,160	deaths, 109,095.
Mandalay.....	Oct. 24-Jan. 1.....	-----	266	
Do.....	Jan. 2-Feb. 12....	-----	1,001	
Moulmein.....	Feb. 13-Mar. 4.....	-----	18	
Myingyan.....	Jan. 30-Feb. 26....	-----	11	
Pegu.....	Jan. 9-Mar. 4.....	-----	44	
Prome.....	do.....	-----	51	
Rangoon.....	Oct. 1-Dec. 18....	68	66	
Do.....	Jan. 2-Mar. 4.....	469	437	
Toungoo.....	Jan. 10-Feb. 19....	-----	5	
<b>Indo-China.</b>				
Anam Province.....	Sept. 1-30.....	9	5	Sept. 1-30, 1915: Cases, 72, deaths, 65.
Cambodia Province.....	do.....	20	19	
Cochin China Province.....	do.....	2	-----	
Saigon.....	Oct. 25-Dec. 5.....	8	5	
Do.....	Jan. 3-Feb. 27....	41	18	
Tonkin Province.....	Sept. 1-30.....	41	41	
<b>Java.</b>				
Kediri residency.....	Oct. 22-Dec. 30....	527	507	Nov. 19-Dec. 30, 1915: Cases, 1,689; deaths, 1,638. Year 1915:
Do.....	Jan. 1-Feb. 11....	145	142	Cases, 4,884; deaths, 4,482;
Madioen residency.....	Oct. 22-Nov. 11....	1	1	among Chinese and natives;
Do.....	Jan. 15-Feb. 11....	16	15	Jan. 1-Feb. 11, 1916: Cases, 644;
Paseroean residency.....	Oct. 22-Dec. 30....	49	50	deaths, 617.
Do.....	Jan. 1-Feb. 11....	34	33	
Surabaya residency.....	Oct. 22-Dec. 30....	24	24	
Do.....	Jan. 1-Feb. 11....	46	46	
Surabaya.....	Nov. 5-Dec. 30....	12	12	
Do.....	Jan. 1-Feb. 11....	45	45	
Surakarta residency.....	Oct. 22-Dec. 16....	1,085	1,056	
Do.....	Jan. 1-Feb. 11....	393	381	
Mauritius.....	Oct. 1-Dec. 30....	8	-----	
Do.....	Jan. 10-Feb. 12....	2	-----	
<b>Peru.</b>				
Ancachs department.....	Jan. 1 - Dec. 31, 1915.....	8	6	Jan. 1-Dec. 31, 1915: Cases, 455; deaths, 240. In addition, 18 cases, cause of disease unknown.
Arequipa department.....	do.....	23	15	
Callao department.....	do.....	39	13	
Lambayeque department.....	do.....	102	38	
Libertad department.....	do.....	123	63	
Lima department.....	do.....	104	63	
Piura department.....	do.....	52	33	
Tumbez Province, Piura.....	do.....	4	9	

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—** Continued.

## **Reports Received from Jan. 1 to May 5, 1916—Continued.**

### **PLAGUE—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Russia:				
Siberia—				
Transbaikal Province	October, 1914.....	16	13	
Straits Settlements:				
Penang	Nov. 28-Dec. 4.....	1	1	
Singapore	Oct. 31-Dec. 13.....	5	2	
Do.	Feb. 20-26.....	1	1	
Siam:				
Bangkok	Nov. 14-20.....		1	
Do.	Jan. 2-Feb. 12.....	52	69	
Union of South Africa:				
Orange Free State	Jan. 23-Mar. 5.....	34	21	In Hoopstad, Winsburg, and Senekal districts.
At sea	Dec. 29, 1915-Jan. 10, 1916.	4		On s. s. Syria from Bombay. Three cases left at Aden; 1 arrived Jan. 10 at Suez.

### **SMALLPOX.**

Algeria:				
Algiers	Dec. 1-31.....	1		
Australia:				
New South Wales				Nov. 19-Dec. 30, 1915: Cases, 62. Jan. 7-Mar. 23, 1916: Cases, 28. Suburb of Sydney.
Auburn	Jan. 21-Feb. 4.....	2		
Bega district	Dec. 10-16.....	1		
Bulahdelah district	Jan. 3-6.....	1		
Chatswood district	Feb. 4-10.....	1		Do.
Cundletown	Dec. 24-30.....	3		
Do.	Jan. 7-13.....	2		
Forster district	Jan. 21-27.....	1		
Gloucester district	Dec. 10-16.....	1		
Kempsey	Jan. 7-13.....	1		On s. s. Yulgilbar from Sydney. Case returned to Sydney.
Newcastle district				Nov. 19-Dec. 30, 1915: Cases, 53. Jan. 7-Mar. 23, 1916: Cases, 17.
Wallsend	Jan. 3-6.....	1		
Rooty Hill district	Dec. 10-16.....	1		
Singleton district	Feb. 4-24.....	2		
Sydney	Dec. 3-10.....	10		
Do.	Jan. 3-6.....	1		
Taree district	Jan. 7-13.....	2		
Wyong district	Jan. 3-6.....	1		
Austria-Hungary:				
Austria				Nov. 7-Dec. 4, 1915: Cases, 3,600. Jan. 16-Feb. 12, 1916: Cases, 7,824.
Prague	Jan. 9-15.....	1		
Trieste	Feb. 20-26.....	2		
Vienna	Dec. 10-Jan. 1.....	24	3	
Do.	Jan. 2-Mar. 18.....	108	20	
Hungary				
Budapest	Nov. 21-Dec. 31.....	373		In addition, Jan. 1-8, 3 among troops.
Do.	Jan. 1-Mar. 4.....	101	5	
Brazil:				
Rio de Janeiro	Nov. 14-Jan. 1.....	147	31	
Do.	Jan. 2-Mar. 18.....	108	25	
British East Africa:				
Mombasa	Dec. 1-31.....	2	2	
Do.	Jan. 1-31.....		1	
Canada:				
Alberta—				
Calgary	Mar. 5-25.....	2		
Manitoba—				
Winnipeg	Feb. 19-26.....	1		
Ontario				
Fort William and Port Arthur	Dec. 19-25.....	1		
Do.	Jan. 16-22.....	2		
Niagara Falls	Mar. 19-Apr. 22.....	2		
Quebec				
Montreal	Dec. 19-25.....	1		
Do.	Jan. 16-Mar. 18.....	4		
Canary Islands:				
Grand Canary	Nov. 23.....			
Arucas	Dec. 5-18.....			Epidemic.
Las Palmas	Jan. 3-9.....		1	Present.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—** Continued.

Reports Received from Jan. 1 to May 5, 1916—Continued.

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Ceylon:				
Colombo.....	Oct. 24-Nov. 13....	6	2	
Do.....	Jan. 30-Feb. 26....	2		
China:				
Antung.....	Jan. 3-Mar. 5.....	2		
Chungking.....	Feb. 27-Mar. 4.....			Present.
Foochow.....	Nov. 21-27.....			Do.
Do.....	Jan. 2-Mar. 4.....			Do.
Harbin.....	Nov. 15-Dec. 26....	12		
Do.....	Jan. 3-Feb. 13.....	5		
Hongkong.....	Jan. 23-Mar. 5.....	34	29	
Tientsin.....	Nov. 21-27.....		2	
Do.....	Feb. 27-Mar. 18....	19	10	
Nanking.....	Nov. 7-Dec. 18.....			Do.
Do.....	Jan. 16-29.....			Do.
Shanghai.....	Feb. 13-26.....	2		
Colombia:				
Sincé.....	Jan. 23.....	9		50 miles from Cartagena.
Cuba:				
Guantanamo.....	Jan. 16.....	1		U. S. naval station. Case, mild varioloid from U. S. S. Louisiana.
Do.....	Jan. 28-Feb. 8.....	1		U. S. naval station. Case, confluent form.
Egypt:				
Alexandria.....	Dec. 21-27.....	3		
Do.....	Mar. 5-11.....	1		
Cairo.....	Sept. 3-Dec. 31....	9	1	
Port Said.....	Dec. 10-16.....	1		
France:				
Marseille.....	Feb. 1-29.....		1	
Paris.....	Dec. 5-11.....	1		
Germany:				Jan. 2-8, 1916: Cases, 2.
Bavaria—				
Munich.....	Dec. 19-25.....	1		
Berlin.....	Feb. 20-26.....	1		
Breslau.....	Dec. 12-18.....	1	1	
Bromberg, Govt. district.....	Jan. 2.....	1		
Düsseldorf.....	Dec. 5-11.....	1		
Gumbinnen, Govt. district.....	Jan. 2-8.....	1		
Hamburg.....	Dec. 26-Jan. 1.....	1		
Lüneburg, Govt. district.....	Feb. 13-19.....	1		
Oppeln, Govt. district.....	Nov. 21-Dec. 25....	14		Of these, 8 in one institution.
Do.....	Jan. 2-8.....	1		
Saxony.....	Nov. 21-Dec. 25....	1		
Great Britain:				
Bristol.....	Jan. 30-Feb. 5.....	1		On s. s. from Bombay.
Cardiff.....	Jan. 30-Apr. 8.....	32	1	
Liverpool.....	Mar. 19-Apr. 8.....	7		From vessels.
Manchester.....	Feb. 20-26.....	1		
South Shields.....	Mar. 5-25.....	2		
Greece:				
Piræus.....	Jan. 31.....			Present in virulent form.
Guatemala:				
Guatemala City.....	Jan. 9-Mar. 19....			Present.
India:				
Bassein.....	Jan. 30-Feb. 5.....		1	
Bombay.....	Nov. 7-Jan. 1.....	103	67	
Do.....	Jan. 2-Mar. 18.....	941	515	
Calcutta.....	Nov. 7-Jan. 1.....		3	
Do.....	Jan. 9-Mar. 4.....		20	
Karachi.....	Jan. 30-Mar. 4.....	4	1	
Madras.....	Nov. 7-Jan. 1.....	46	20	
Do.....	Jan. 2-Mar. 18.....	609	192	
Rangoon.....	Oct. 31-Dec. 11....	14	7	
Do.....	Jan. 2-Mar. 4.....	314	67	
Toungoo.....	Dec. 5-11.....		1	
Italy:				
Turin.....	Nov. 22-Dec. 5.....	6		
Japan:				
Yokohama.....	Jan. 17-Mar. 19....	12	2	
Java:				Oct. 15-Dec. 30, 1915: Cases, 558; deaths, 118. Jan. 1-Feb. 9, 1916: Cases, 97; deaths, 21.
Batavia.....	Nov. 9-Jan. 3.....	36	13	
Do.....	Jan. 4-Feb. 9.....	16	10	
Samarang.....	Nov. 12-22.....	2		
Malta.....	Dec. 1-31.....	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—** Continued.

**Reports Received from Jan. 1 to May 5, 1916—Continued.**

## **SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
Manchuria:				
Harbin.....	Nov. 15-28.....	5		See China.
Mexico:				
Aguascalientes.....	Dec. 13-Jan. 2.....	11	7	
Do.....	Jan. 10-Apr. 16.....		267	
Chihuahua.....	Jan. 3-9.....	1	1	
Frontera.....	Nov. 21-Dec. 25.....	86	24	Dec. 26-31, 1915: Present.
Do.....	Jan. 1-Apr. 8.....		14	Present Jan. 1-Feb. 10; estimated
Guadalajara.....	Dec. 5-25.....	21	7	number cases, 70.
Do.....	Jan. 2-Apr. 8.....	61	34	
Hermosillo.....	Dec. 12-Mar. 4.....	141	29	Feb. 13, from 50 to 100 (estimated)
Juarez.....	Feb. 11-Mar. 19.....	13		cases present within radius of
				50 miles of city.
Mazatlan.....	Jan. 25-Apr. 11.....	65	40	Including 53 cases brought, Feb.
				9-15, from Sonora.
Mexico City.....				Feb. 29, 2 cases on train from
Monterey.....	Dec. 13-19.....	5	3	Mexico City to El Paso.
Do.....	Jan. 3-Apr. 19.....	25		
Naco.....	Feb. 15.....	2		
Nogales.....	Feb. 7-Mar. 4.....	27	3	
Piedras Negras.....	Jan. 10-Apr. 21.....	23	15	
Progreso.....	Dec. 5-18.....	2		
Salina Cruz.....	Jan. 1-15.....	1	1	
Tampico.....	Dec. 7-31.....		21	Jan. 14: Epidemic: estimated
Do.....	Jan. 1-Apr. 10.....		105	cases, 100.
Vera Cruz.....	Dec. 13-Jan. 1.....	34	29	
Do.....	Jan. 3-Apr. 9.....	105	86	
Netherlands:				
Amsterdam.....	Jan. 15-Mar. 18.....	21	3	
Persia:				
Teheran.....	Nov. 25-Dec. 10.....		140	
Portugal:				
Lisbon.....	Dec. 5-26.....	4		
Do.....	Feb. 13-Mar. 11.....	7		
Russia:				
Petrograd.....	Oct. 24-Dec. 25.....	125	37	
Do.....	Jan. 2-Feb. 26.....	234	88	
Riga.....	Nov. 14-Jan. 1.....	6		Aug. 1-31, 1915: Cases, 10; deaths, 1.
Siberia—				
Vladivostok.....	Dec. 29-Jan. 4.....	10	3	
Siam:				
Bangkok.....	Nov. 28-Dec. 4.....		1	
Spain:				
Cadiz.....	Dec. 1-31.....		1	
Madrid.....	Nov. 1-Dec. 31.....		41	
Do.....	Jan. 1-Feb. 29.....		68	
Seville.....	Dec. 1-31.....		7	
Do.....	Jan. 1-Feb. 29.....		10	
Tarragona.....	Feb. 13-19.....		1	
Valencia.....	Nov. 21-Jan. 1.....	141	10	
Do.....	Jan. 2-Mar. 25.....	95	8	
Straits Settlements:				
Penang.....	Dec. 26-Jan. 1.....	2	1	
Do.....	Jan. 2-Feb. 19.....	18	6	
Singapore.....	Nov. 28-Jan. 1.....	9	1	
Do.....	Jan. 16-Mar. 11.....	26	5	
Switzerland:				
Basel.....	Nov. 29-Dec. 25.....	43		
Do.....	Jan. 30-Mar. 11.....	53		Jan. 16-22, 1916: Cases, 13, re-
				ceived out of date.
Turkey in Asia:				
Beirut.....	Oct. 10-Dec. 25.....	75	31	
Do.....	Jan. 9-Feb. 12.....	21	9	
Union of South Africa:				
Johannesburg.....	Oct. 17-23.....	2		
Uruguay:				
Montevideo.....	Oct. 1-31.....	1		
Venezuela:				
Tachira, State.....	Mar. 12.....			Present.

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—** Continued.

**Reports Received from Jan. 1 to May 5, 1916—Continued.**

## **TYPHUS FEVER.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Algeria:</b>				
Algiers.....	Feb. 1-29.....	1	1	
<b>Argentina:</b>				
Rosario.....	Oct. 1-31.....		1	
Do.....	Jan. 1-31.....		1	
<b>Austria-Hungary:</b>				
Austria.....				Nov. 14-Dec. 1, 1915: Cases, 490.
Trieste.....	Feb. 6-12.....	6		Jan. 9-Feb. 12, 1916: Cases, 1,580.
Vienna.....	Jan. 23-29.....	12	2	
Hungary.....				Jan. 24-Feb. 6, 1916: Cases, 50; deaths, 4.
Budapest.....	Dec. 12-31.....	3	1	
Do.....	Jan. 1-Feb. 26.....	14		
<b>China:</b>				
Antung.....	Nov. 22-Dec. 5.....	2		
Do.....	Mar. 13-19.....	1		
<b>Cuba:</b>				
Habana.....	Feb. 1-10.....	2	1	Imported from Mexico.
<b>Egypt:</b>				
Alexandria.....	Nov. 12-Dec. 31.....	5	2	
Do.....	Jan. 1-Mar. 18.....	78	19	
Cairo.....	Aug. 13-Dec. 31.....	73	40	
Port Said.....	Nov. 19-Dec. 31.....	1	2	
<b>Germany:</b>				Feb. 6-19, 1916: Cases, 69; deaths, 16; prisoners. Feb. 20-Mar. 4, 1916: Cases, 43; death, 1.
Aix la Chapelle.....	Jan. 9-Mar. 18.....		3	
Barmen.....	Jan. 2-8.....	2		
Berlin.....	Nov. 21-Jan. 1.....		7	
Do.....	Jan. 30-Mar. 11.....		10	
Bremen.....	Nov. 28-Dec. 4.....	1	1	
Do.....	Jan. 23-Feb. 26.....	1	3	
Bromberg, Govt. district.....	Feb. 20-26.....	1	1	
Chemnitz.....	Jan. 23-Mar. 26.....		1	
Dortmund.....	Dec. 12-18.....	1	1	
Erfurt.....	Dec. 19-25.....	1	1	
Do.....	Jan. 2-Mar. 4.....		4	
Frankfort on Main.....	Feb. 5-11.....	1		
Hanover.....	Nov. 21-Dec. 25.....	2	2	
Do.....	Jan. 9-Mar. 27.....	2	3	
Königsberg.....	Nov. 28-Jan. 1.....	10		
Do.....	Jan. 1-Apr. 8.....	21	4	
Lübeck.....	Nov. 7-Dec. 31.....	3	2	
Do.....	Jan. 1-8.....	1		
Marburg.....	Feb. 20-26.....	1	1	
Merseburg, Govt. district.....	Dec. 26-Jan. 1.....	1		
Oppeln, Govt. district.....	Jan. 23-29.....	1	1	
Saxe-Coburg-Gotha.....	Dec. 5-18.....	3		
Do.....	Jan. 9-15.....	1		
Saxony.....	Feb. 20-26.....	37	1	
Stettin, Govt. district.....	Dec. 5-25.....		6	
Do.....	Jan. 9-26.....	1	2	
<b>Great Britain:</b>				
Dundee.....	Dec. 12-18.....	3		
Glasgow.....	Feb. 11-Mar. 1.....	9		
Liverpool.....	Dec. 5-18.....	3	2	
Do.....	Mar. 5-11.....	1	1	
Manchester.....	Jan. 23-29.....	5	1	
<b>Greece:</b>				
Saloniki.....	Oct. 24-Jan. 2.....		186	Dec. 10: Present among troops.
Do.....	Jan. 3-Mar. 19.....		27	
Yehije-Vardar.....	Dec. 10.....			Present among troops.
<b>Italy:</b>				
Palermo.....	Dec. 13-19.....	3		
Do.....	Jan. 3-9.....	3		
<b>Japan:</b>				
Tokyo.....	Feb. 27-Mar. 17.....	110		
<b>Java:</b>				Jan. 1-Mar. 17, 1916: Cases, 155.
Batavia.....	Oct. 26-Feb. 9.....	70	22	Oct. 15-Dec. 30, 1915: Cases, 42; deaths, 28. Jan. 3-Feb. 9, 1916: Cases, 24; deaths, 11.
Samarang.....	Oct. 22-Dec. 7.....	7	1	
Do.....	Jan. 1-Feb. 4.....	9	3	
<b>Mexico:</b>				
Agua Calientes.....	Dec. 13-Jan. 2.....		12	
Do.....	Jan. 10-Apr. 9.....		18	
Guadalajara.....	Dec. 25-31.....	6	2	
Do.....	Feb. 6-Apr. 8.....	146	34	
Hermosillo.....	Feb. 4-22.....	3	3	
Juarez.....	To Mar. 19.....	5		
Mexico City.....	Dec. 23.....			Prevalent.
Do.....	Jan. 12.....		1	Jan. 1-31, 1916: Cases, 2,001; deaths, 488.
Monterey.....	Jan. 3-9.....	1		

# **CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—** Continued.

## **Reports Received from Jan. 1 to May 5, 1916—Continued.**

### **TYPHUS FEVER—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Mexico—Continued.</b>				
Oaxaca.....	Dec. 9.....	.....	1	American.
Piedras Negras.....	Mar. 5-18.....	2	.....	.....
Queretaro.....	Dec. 16.....	.....	.....	Prevalent. Estimated number
Salina Cruz.....	Dec. 16-21.....	1	.....	cases, 500.
Do.....	Feb. 1-15.....	1	.....	In person from Mexico City.
Tampico.....	Dec. 1-31.....	.....	1	.....
Do.....	Jan. 11-Apr. 10.....	.....	6	.....
Vera Cruz.....	Feb. 7-Apr. 9.....	.....	5	.....
<b>Russia:</b>				
Moscow.....	Dec. 7-27.....	28	5	Nov. 28-Dec. 11, 1915: Cases, 22.
Do.....	Jan. 2-Mar. 4.....	859	91	
Petrograd.....	Oct. 24-Dec. 25.....	34	6	
Do.....	Jan. 2-Feb. 26.....	48	13	
Riga.....	Nov. 14-20.....	12	.....	
Vladivostok.....	Oct. 8-Nov. 13.....	21	6	
<b>Spain:</b>				
Madrid.....	Nov. 1-30.....	.....	1	.....
Do.....	Feb. 1-29.....	.....	1	.....
<b>Sweden:</b>				
Stockholm.....	Dec. 26-Jan. 1.....	1	.....	.....
Do.....	Feb. 6-26.....	5	.....	.....
<b>Switzerland:</b>				
Zurich.....	Jan. 16-22.....	1	.....	.....
<b>Turkey in Asia:</b>				
Aleppo.....	Oct. 26-Nov. 1.....	.....	.....	Estimated deaths, 200 daily.
Bagdad district.....	Feb. 23.....	.....	.....	Prevalent.
Beirut.....	Nov. 21-27.....	7	3	.....
Do.....	Jan. 23-Feb. 12.....	20	10	.....
Damascus.....	Feb. 1-23.....	1,100	150	Estimated; among troops.
Mersina.....	Nov. 21-27.....	3	.....	.....

### **YELLOW FEVER.**

<b>Ecuador:</b>				
Guayaquil.....	Nov. 1-30.....	1	1	
<b>Mexico:</b>				
Frontera.....	Apr. 20.....	.....	1	

# SANITARY LEGISLATION.

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## COURT DECISIONS.

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### UNITED STATES DISTRICT COURT—NORTHERN DISTRICT OF NEW YORK.

#### **Harrison Antinarcotic Law—Quantity of Habit-Forming Drugs which may be Prescribed or Sold on Prescription Held to be Limited to the Needs of the Patient.**

UNITED STATES *v.* CURTIS, 229 Fed. Rep., 288. (Feb. 7, 1916.)

It was the purpose of Congress in enacting the Harrison Antinarcotic Law to limit the quantity of the drugs referred to in the law that may be dispensed by a dealer on a physician's prescription.

The court held that a physician who issues a prescription for an unusually large amount of any of the drugs enumerated in the Harrison Antinarcotic Law, and which prescription shows on its face that the quantity prescribed is unreasonable and unusual, is guilty of an offense under the law, unless such prescription indicates the necessity therefor; and the dealer who fills such a prescription or order issued by a physician is guilty of an offense under the law.

**RAY**, District Judge: The indictment was found and filed January 10, 1916, and contains two counts. The first count charges that Frederick W. Curtis on or about the 2d day of March, 1915, at the city of Troy, Northern District of New York, in violation of the provisions of section 1 of the act of December 17, 1914, and the acts amendatory thereof and supplemental thereto—

did unlawfully, wrongfully, and knowingly sell, dispense, and distribute to Mrs. J. McCullough 100 quarter-grain tablets of morphine sulphate, the said morphine sulphate tablets being a compound, manufacture, salt, derivative, and preparation of opium, and which said morphine tablets were sold, dispensed, and distributed by the said Frederick W. Curtis as a dealer to a consumer under and in pursuance of a written prescription issued by a physician registered under the said act, and which said prescription did not indicate that the said morphine sulphate tablets were for the treatment of an addict or habitué to effect a cure, or for a patient suffering from an incurable or chronic disease, and which said 100 quarter-grain morphine sulphate tablets were more than was necessary to meet the immediate needs of the patient, contrary to the form of the statute in such case made and provided, and against the peace and dignity of the United States of America.

The second count of the indictment charges that the said defendant, at the city of Troy, in the Northern District of New York, on or about the 4th day of March, 1915, and at divers times between the said 4th day of March, 1915, and the 22d day of November, 1915, in violation of the said act, plainly referring to it—

did unlawfully, wrongfully, and knowingly sell, dispense, and distribute 10,900 quarter-grain morphine sulphate tablets to Mrs. J. McCullough, said morphine sulphate tablets being a compound, manufacture, salt, derivative, and preparation of opium, and which said morphine sulphate tablets were sold, dispensed, and distributed by the said Frederick W. Curtis as a dealer to a consumer under and in pursuance of 109 written prescriptions issued by a physician, and which said written prescriptions were each for 100 quarter-grain morphine sulphate tablets, and which said prescriptions did not indicate that the said morphine sulphate tablets were for the treatment of an addict or habitué to effect a cure, or for a patient suffering from an incurable or chronic disease, and which said 109 prescriptions did not show a decreasing dosage or reduction of the quantity prescribed, and which said prescriptions were for a quantity more than was necessary to meet the immediate needs of a patient, contrary to the form of the statute in such case made and provided, and against the peace and dignity of the United States of America.

The defendant, Frederick W. Curtis, demurs to this indictment and to each count thereof on the ground that—

the acts of defendant averred in said indictment as constituting a crime against the peace and dignity of the United States of America are not prohibited by any law of the United States of America; that the acts of defendant averred in said indictment as a crime against the peace and dignity of the United States of America violated no law of the United States of America.

The question presented, therefore, is: May a dealer in the narcotic drugs mentioned in the statute knowingly sell, dispense, and distribute on a written prescription issued by a physician duly registered under the act, at one time and under one prescription, 100 quarter-grain tablets of morphine sulphate, such prescription not indicating that the said morphine sulphate tablets are for the treatment of an addict or habitu   to effect a cure, or for a patient suffering from an incurable or chronic disease; it being known to the seller that such quantity of 100 quarter-grain morphine sulphate tablets are more than are necessary to meet the immediate needs of the patient holding the prescription and to whom the tablets are sold?

If a dealer without violating the law may do this, then to a customer holding the prescription of a physician which does not indicate that the morphine tablets are for the treatment of an addict or habitu   to effect a cure, or for a patient suffering from an incurable or chronic disease, and knowing that the quantity prescribed or called for by the prescription is more than is necessary to meet the immediate needs of the patient, he may sell and deliver or dispense and distribute any amount of such drug, provided only the amount sold, dispensed, or distributed is called for by the prescription. In short, there is no limitation on the amount that may be sold, dispensed, and distributed by the dealer, provided the amount sold or distributed is called for by the registered physician.

I am not impressed with the contention of the learned counsel for the defendant that this indictment does not charge the commission of an indictable offense under the provisions of the act referred to. It is quite true that the act does not prescribe or limit in terms the amount in weight or quantity of opium or coca leaves, or any compound, manufacture, salt, derivative, or preparation thereof, which may be sold, dispensed, or distributed by a dealer to a consumer under and in pursuance of a written prescription issued by a physician, dentist, or veterinary surgeon registered under the act. It is also true that the act does not in terms limit in weight or quantity the amount of such drugs which a physician, dentist, or veterinary surgeon registered under the act may prescribe in the course of his professional practice only. However, it is self-evident, I think, that by section 2 of the act Congress has made it an offense and unlawful for any person to sell, barter, exchange, or give away any of the aforesaid drugs, except in pursuance of a written order of the person to whom such article is sold, bartered, exchanged, or given, on a form to be issued in blank for that purpose by the Commissioner of Internal Revenue. It is provided that nothing contained in section 2 shall apply to the dispensing or distribution of any of the aforesaid drugs to a patient by a physician, dentist, or veterinary surgeon registered under this act "in the course of his professional practice only," provided that the physician, etc., shall keep a record of all such drugs dispensed or distributed, showing the amount dispensed or distributed, etc. Subdivision "b" of section 2 also provides that nothing contained in section 2 shall apply—

to the sale, dispensing, or distribution of any of the aforesaid drugs by a dealer to a consumer under and in pursuance of a written prescription issued by a physician, dentist, or veterinary surgeon registered under this act [etc.].

It is plain, it seems to me, that it was the purpose of Congress to limit the quantity of these drugs that may be sold or dispensed by a dealer under and pursuant to a written order issued by a physician, and to limit the amount and quantity to such an amount and quantity as is or ought to be called for by a prescription issued by the



physician "in the course of his professional practice only." Section 2 says in terms that nothing contained in this section shall apply—

(b) To the sale, dispensing, or distribution of any of the aforesaid drugs by a dealer to a consumer under and in pursuance of a written prescription issued by a physician, dentist, or veterinary surgeon registered under this act.

And then follows a proviso that the prescription shall be dated and signed and that the prescription shall be preserved, etc. Is it reasonable or probable that Congress intended that physicians may prescribe unlimited quantities and that dealers may fill such prescriptions? Section 1 of the act contains this provision:

That the Commissioner of Internal Revenue, with the approval of the Secretary of the Treasury, shall make all needful rules and regulations for carrying the provisions of this act into effect.

Treasury Department regulation 2172, issued by the Treasury Department, dated March 9, 1915, and signed by David A. Gates, Acting Commissioner of Internal Revenue, and approved by W. G. McAdoo, Secretary of the Treasury, contains the following:

*Fraudulent prescriptions.*—A druggist, when receiving a prescription for any of the drugs coming within the scope of this law, should carefully scrutinize such prescription, and where he has reason to believe that the same is forged, or that the quantity of drug prescribed is unusually large, he should, before filling such prescription, satisfy himself that the same is genuine and properly prepared. Every druggist should know the signature of the reputable, legitimate physicians in his locality, and should he fill a fraudulent prescription he would be liable to prosecution.

A prescription, even if issued by a physician, which on its face calls for an unusually and unreasonably large quantity of the drug, is fraudulent of course, as it bears internal evidence that it is not issued in good faith and that it is not a prescription. Treasury Department Circular No. 2200, dated May 11, 1915, says:

While the law does not limit or state the quantity of any of the narcotic drugs that may be so dispensed or prescribed at one time, it does provide that it shall be unlawful to obtain by means of order forms any of the aforesaid drugs for any purpose other than the use, sale, or distribution thereof in the "conduct of a lawful business in said drugs or in the legitimate practice of his profession;" further, that all preparations and remedies containing narcotic drugs coming within the scope of this act are "sold, distributed, given away, dispensed, or possessed as medicines and not for the purpose of evading the intentions and provisions of this act;" and it is further provided that it shall be unlawful for any person not registered to have in his possession or under his control any of the drugs, preparations, or remedies "which have not been prescribed in good faith by a physician, dentist, or veterinary surgeon registered under this act."

Therefore where a physician, dentist, or veterinarian prescribes any of the aforesaid drugs in a quantity more than is apparently necessary to meet the immediate needs of a patient in the ordinary case, or where it is for the treatment of an addict or habitué to effect a cure, or for a patient suffering from an incurable or chronic disease, such physician, dentist, or veterinary surgeon should indicate on the prescription the purpose for which the unusual quantity of the drug so prescribed is to be used. In cases of treatment of addicts these prescriptions should show the good faith of the physician in the legitimate practice of his profession by a decreasing dosage or reduction of the quantity prescribed from time to time, while, on the other hand, in cases of chronic or incurable diseases such prescriptions might show an ascending dosage or increased quantity. Registered dealers filling such prescriptions should assure themselves that the drugs are prescribed in good faith for the purpose indicated thereon, and, if there is reason to suspect that the prescriptions are written for the purpose of evading the intentions of the law, such dealers should refuse to fill same.

This is a construction of the law and of its meaning, intent, and purpose. It shows what is and what is not a prescription, and what sort of an order a registered dealer holding a license showing he has paid the special tax, under the law, may fill. I am of the opinion, and hold, that a physician who issues a prescription for an unusually large amount of these drugs, or of any one of them, and which prescription shows on its face that the quantity prescribed is unreasonable and unusual, is guilty of an offense under the law, unless such prescription indicates the necessity therefor; and I am also of the opinion, and hold, that the dealer who fills such a prescription or order issued by a physician is guilty of an offense under the law. If not so, then, as already stated, physicians may prescribe unlimited quantities, and druggists may fill the prescriptions with impunity, and thus many of the evils sought to be remedied by the enactment of the so-called Harrison narcotic law will be augmented, instead of being remedied.

### Section 6 of the act provides that—

The provisions of this act shall not be construed to apply to the sale, distribution, giving away, dispensing, or possession of preparations and remedies which do not contain more than 2 grains of opium: \* \* \* *Provided*, That such remedies and preparations are sold, distributed, given away, dispensed, or possessed as medicines and not for the purpose of evading the intentions and provisions of this act.

It is evident to my mind that the sale, distribution, giving away, or dispensing of large and unusual quantities of these drugs, unaccompanied by explanation as to the necessity therefor, are sales and dispensing of the drug for the very purpose of evading the intentions and provisions of the act, and therefore unlawful.

### Section 8 of the act provides—

That it shall be unlawful for any person not registered under the provisions of this act, and who has not paid the special tax provided for by this act, to have in his possession or under his control any of the aforesaid drugs; and such possession or control shall be presumptive evidence of a violation of this section, and also of a violation of the provisions of section 1 of this act.

Both counts of the indictment under consideration charge that the defendant, Frederick W. Curtis, "did unlawfully, wrongfully, and knowingly sell, dispense, and distribute \* \* \* morphine sulphate tablets," and that he sold and dispensed same as a dealer to a consumer, etc. This is equivalent to charging that he had these drugs in his possession. In *United States v. Wilson* (D. C.), 225 Fed. 82, it was held:

Harrison antinarcotic law, December 17, 1914, section 8, establishes the rule of evidence that, upon proof that a defendant was producing, importing, manufacturing, dealing in, dispensing, selling, distributing, or giving away, as mentioned in section 1, clause 1, opium or coca leaves, and that a narcotic was found in his possession, he is presumptively guilty of violating the act, that then the burden of proof is upon defendant to show affirmatively that he is not one of the class mentioned in section 1 as being required to register, or, if so, that he had registered and paid the special tax.

If this be good law, then this indictment charges an offense, for it clearly charges that the defendant had the drugs in his possession at the time mentioned in the indictment, else he could not have sold, dispensed, and distributed them to the person named in the indictment. If in point of fact the defendant had registered and paid the special tax, then proof of such facts on the trial of the indictment will be a complete defense, and result in the acquittal of this defendant, inasmuch as both counts charge a violation of section 1 of the act, while the particular counts specified constitute an offense under and a violation of section 2 of the act, as the defendant is not within the exception of subdivision "b" of such section.

As I understand the purpose of the pleader, there should be a new indictment, and the one under consideration should be dismissed. I am familiar with the holding in *United States v. Friedman* (D. C.) 224 Fed., 276 [P. H. R., Dec. 24, 1915, p. 3777], but am unable to agree with the learned judge who decided that case.

## MICHIGAN SUPREME COURT.

### Compensation Awarded to Workman for Injury to Eye Caused by Gonorrheal Infection Following an Accident.

*CLINE v. STUDEBAKER CORPORATION*, 155 N. W. Rep. 519. (Dec. 22, 1915.)

A piece of steel flew into a workman's eye. Later gonorrheal infection developed and caused serious injury to the eye. The workman was free from the disease when the accident occurred. It was shown that fellow workmen attempted to remove the piece of steel, and the court held that the evidence was sufficient to warrant the finding that the infection was the result of the accident within the meaning of the workmen's compensation law.

An employee of the Studebaker Corporation instituted proceedings under the workmen's compensation law of Michigan claiming compensation for injury to an eye caused by gonorrheal infection which followed the accidental entry into his eye of a flake of steel.

The court, by Mr. Justice Person, said:

"The fact that a piece of steel flew into claimant's eye in the course of his employment seems fairly well established. His testimony is to that effect, and it is corroborated by his fellow workmen. But it is not shown that this flake of steel directly caused the subsequent impairment of vision; that, on the contrary, must be attributed to the gonorrheal infection. Such is the finding of the board, and the finding is in accordance with the agreement between the parties. Nor is it probable, from the testimony of the doctors, that the germ which caused the infection was upon the steel itself. They state, however, that such a germ might get into the eye from a towel, from washing utensils, from the straps or rails of a street car, and in similar ways.

"The burden is therefore, as insisted by counsel for defendants, upon the claimant to show by a preponderance of evidence that the infection arose out of and in the course of his employment, instead of at some other time and in some other way. In short, under the circumstances, it was for claimant to show that the infection was connected with the accidental entry of the steel into his eye. And in this behalf counsel cite *McCoy v. Michigan Screw Co.*, 180 Mich., 454, 147 N. W., 572, where the relation between the infection and the employment was held not to have been established. In instances like the present, however, where the claimant himself is personally free from the disease, it is hardly possible that the source of infection can be shown absolutely by direct evidence; nor is that necessary.

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"As has been said, the claimant was himself personally free from the disease up to the time of the accident. Such was the testimony of the doctor who attended him, and the Industrial Accident Board has found it to be a fact; nor does counsel for defendants dispute the correctness of the finding. The gonorrheal germ must have come from some outside source. It must also have been received not later than the time of the accident to have developed into the condition found by the doctor two days afterwards, according to his testimony. These conditions, in connection with the fact, as shown, that an injured eye is more susceptible to the infection than a normal eye, and with the further fact that at once, after the accident, a fellow workman examined the eye, using for the purpose a match wrapped in a piece of cloth, create a considerable degree of probability that the germ got into the eye in the attempt to remove the steel; and this probability was sufficient to warrant the board in their finding that:

"The infection which destroyed the sight of the eye is not reasonably accounted for except as coming through or resulting from the accident." *Sullivan v. Modern Brotherhood*, 167 Mich., 524, 133 N. W., 486 42 L. R. A. (N. S.), 140, Ann. Cas. 1913A, 1116.

"If the germ was introduced in an attempt to remove the flake of steel from the eye, it was a direct consequence of the accident and arose out of and in the course of the employment. The attempt to remove the particle of steel was a natural and necessary result of its entry into the eye; in fact, the proofs in this case seem to fairly establish the element that was lacking in the *McCoy* case."

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The award of the Industrial Accident Board was reversed because the court found that the loss of the sight of the eye was only partial, while the award had been made for complete loss of the sight of the eye.

# STATE LAWS AND REGULATIONS PERTAINING TO PUBLIC HEALTH.

## ALASKA.

**Communicable Diseases—Notification of Cases—Quarantine—Placarding—Disinfection—Hospitalization—School Attendance. Common Drinking Cups and Common Towels. Spitting. (Reg. Commissioner of Health, Oct. 7, 1915.)**

Notifiable diseases:

Actinomycosis.  
Amebic dysentery.  
Anterior poliomyelitis.  
Anthrax.  
Asiatic cholera.  
Chicken-pox.  
Diphtheria.  
Membranous croup.  
Echinococcus disease.  
Epidemic cerebrospinal meningitis.  
Favus.  
German measles.  
Glanders.  
Japanese lung fluke disease.  
Leprosy.  
Malaria.  
Measles.  
Ophthalmia neonatorum.

Pellagra.  
Plague.  
Tuberculosis.  
Rabies.  
Relapsing fever.  
Rocky Mountain fever.  
Scarlet fever  
Scarlatina.  
Smallpox.  
Trachoma.  
Trichinosis.  
Typhoid fever.  
Paratyphoid fever.  
Typhus fever.  
Hookworm disease.  
Whooping cough.  
Yellow fever.

All cases of, or cases suspicious of, the above diseases are required to be reported by physicians to the local health officer within 24 hours. The report must specify the name of the patient, age, sex, residence, occupation, diagnosis, place where probably contracted, date of exposure, and date of onset.

Physicians are also required to report any obscure eruptive disease which may be of a contagious nature.

Teachers and principals of schools are required to report the appearance of a rash in a school child, exclude such child from school, and refer it to the health officer or family physician.

Householders are required to report to the local health officer or family physician the appearance of any acute disease of an eruptive nature occurring in the household.

Local health officers are required to keep a record of the diseases reported to them, and not later than the fifth of the month following must submit the report to the assistant commissioner of health for their division. These reports must contain, in addition to the information furnished the health officer by the family physician, the following data: Date of quarantine and placards, date of release, number of persons exposed immediately or remotely, place of business, or school attended.

Upon learning of the existence of any case of Asiatic cholera, leprosy, plague, typhus fever, or yellow fever the local health officers are required to immediately investigate and report at once to the Territorial commissioner of health.

Upon learning of the existence of anterior poliomyelitis, chicken-pox in adults, diphtheria, cerebrospinal meningitis, smallpox, scarlet fever, typhoid or paratyphoid fever, after these diseases have been absent from a community for a period exceeding one month, local health officers, after investigation, are required to report to the assistant commissioner of health for their division, giving certain epidemiological information, and must at intervals make further reports of the progress of the outbreak.

When any dispute arises relative to the correct diagnosis of any communicable disease, the opinion of the local health officer prevails until the assistant commissioner of health or the person appointed by him can see the case. His decision must be final.

All health officers are required to make investigation of any communicable disease within their jurisdiction and to take the necessary measures to suppress it, in accordance with the regulations of the Territorial commissioner of health.

Health officers are given the power to remove and restrain in a pesthouse or isolation hospital, or to quarantine or isolate, any person ill of a communicable disease. However, no person can be so restrained until examined by the health officer. The health officer is then given power to quarantine, isolate, restrain, or disinfect any person or persons either sick of or exposed to a communicable disease, as well as to disinfect any room, house, or contents, clothing, bedding, etc., that may be infected.

Any person who does not obey the provisions of the law or rules of the Territorial commissioner of health, or who breaks quarantine or conceals a case of communicable disease, will be dealt with according to the law provided in such cases.

For the purpose of control, notifiable diseases are divided into three groups, with regulations for each group, except the third, and special regulations for the several diseases of each group.

In the first group are:

Diphtheria.	Plague.
Scarlet fever.	Typhus fever.
Asiatic cholera.	Yellow fever.

These diseases must be quarantined immediately by the health officer and special precautions taken.

By quarantine is meant that the patient, attendants, and all persons who come in contact with patient and attendants are required to remain in the house for a specified period, and that none except the attending physician may enter or leave the house.

Houses under quarantine must be placarded, the placard to contain the name of the disease and the fact that the house is quarantined.

The same rules apply to the sick as to the well in houses which are quarantined.

The health officer is the only one having authority to establish or release quarantine.

In the second group are:

Anterior poliomyelitis,	Ophthalmia neonatorum,
Anthrax,	Relapsing fever,
Chicken-pox,	Rocky Mountain fever,
Epidemic cerebrospinal meningitis,	Smallpox,
Glanders,	Typhoid fever,
Malaria,	Paratyphoid fever,
Measles,	Whooping cough.

and all cases of so-called Cuban, Dhobie, Egyptian, Japanese, Kangaroo, Manila, or Philippine itch.

Patients suffering from these diseases must be isolated. By isolation is meant that the patient is removed from contact with other inmates of the house and that the house is placarded, the placard to contain the name of the disease and the warning as to its contagious nature. The placard may be removed by the health officer only. Well persons may leave a house under these conditions provided their business does not bring them into contact with children, or they do not visit places of public gathering, or that the special regulations in such diseases do not state to the contrary.

In the third group are:

Actinomycosis.	Leprosy.
Amebic dysentery.	Pellagra.
Echinococcus disease.	Rabies.
Favus.	Trachoma.
Uncinariasis.	Trichinosis.
Japanese lung fluke disease.	Tuberculosis.

*Cholera, plague, and typhus fever.*—These diseases must be reported by wire, where possible, or where such facility is absent, by the quickest method of communication, to the Territorial commissioner of health, and must be strictly quarantined with day and night guard.

*Scarlet fever.*—This disease must be quarantined until desquamation has ceased and all inflammation of the throat, nose, and ears has disappeared.

No case of scarlet fever may be released from quarantine until six weeks have elapsed from the first appearance of symptoms.

All children who have not previously had the disease must be quarantined for 10 days after last exposure.

All bedding, clothing, dishes, etc., used in the sick room must be disinfected. Formalin or boiling water may be used for this purpose.

Before quarantine is raised the quarantined premises must be disinfected.

Before discharge from quarantine, patients must be bathed in a solution of bichloride of mercury 1-2000, or its equivalent.

Teachers living in the same house must not return to school until 10 days have elapsed from date of last exposure.

*Diphtheria.*—Quarantine must be maintained for at least six weeks from the beginning of the disease, and longer if sore throat, false membrane, or discharge from eyes, ears, and nose persists.

Nonimmunes exposed to diphtheria must be quarantined for 10 days after last exposure.

Bedding, clothing, dishes, etc., used in the sick room must be disinfected. Formalin or boiling water may be used.

Patients must receive a bath in a solution of bichloride of mercury 1-2000 before discharge from quarantine.

Teachers living in the same house with a case of diphtheria are not permitted to return to school until 10 days have elapsed from the date of last exposure.

*Smallpox.*—Health officers are required to investigate smallpox infection or exposure when cases are not attended by a qualified physician. Physicians must not only report cases, but contacts as well, to the health officer.

Patients must be isolated, preferably in an isolation hospital, until desquamation has ceased.

The house must be placarded with the statement that smallpox exists on the premises.

Contacts must either be vaccinated or isolated for 18 days, unless protected by a previous attack of smallpox or by successful vaccination within 7 years.

Upon the appearance of smallpox, all health officers are required to warn the public of its presence and to instruct the community in the methods for its prevention.

When smallpox actually exists, it is the duty of the health officers to vaccinate free of charge any person who may make application to them. The expense must be borne by the city, community, or Territory, the commissioner of health to decide which must bear the expense.

Where smallpox exists in a community, no child is permitted to attend school unless showing evidence of having had smallpox or of having been successfully vaccinated within seven years.

The quarantined premises and contents must be disinfected before quarantine may be raised.

Cuban itch, Japanese itch, etc., which are regarded as being mild forms of smallpox, must be treated as such.

*Measles.*—Cases of measles must be isolated. Nonimmune children coming in contact with measles are prohibited from attending any school until two weeks have elapsed after the beginning of the last case in the family.

Municipalities are authorized to enforce a stricter form of isolation if they deem it advisable or necessary.

Health officers are required also to notify the public upon the appearance of an epidemic of measles and to warn the community not to deliberately expose their children to infection.

Health officers are also required to inform teachers that measles is especially communicable in its early stages, and that they must therefore exclude all children showing symptoms of the nose, throat, or ears, and to report the names and addresses of such children to the health officer.

Cases should be quarantined not less than four weeks and until desquamation has ceased.

*German measles.*—German measles must be handled in the same manner as measles, except that isolation may terminate in one week from the beginning of the disease.

*Chicken-pox.*—Cases of chicken-pox must be excluded from school and isolated. Contacts are not required to be excluded from school. Chicken-pox occurring among adults must be reported and treated as smallpox.

*Whooping cough.*—Cases of whooping cough must be isolated. Such isolation must continue not less than five weeks from the beginning of the disease, or longer if the "whoop" persists. Contacts who have had the disease are allowed to attend school.

*Rocky Mountain tick fever.*—All cases or suspected cases of Rocky Mountain tick fever must be isolated and reported to the assistant health commissioner for the division in which the disease occurs and by him must be reported to the commissioner of health.

*Anterior poliomyelitis.*—Cases of this disease must be isolated for at least 21 days from the beginning of the illness.

Individual reports of these cases must be made to the assistant commissioner of health for the division in which the disease occurs and by him to the commissioner of health.

Contacts are prohibited from attending school until isolation measures are terminated and the premises have been disinfected.

All discharges from nose and throat must be immediately disinfected.

*Epidemic cerebrospinal meningitis.*—Isolation measures must be continued until the termination of acute symptoms, but no period of isolation must be less than 14 days from the onset, whether terminating by recovery or death.

Contacts in the house can not attend school until 10 days have elapsed after all restrictions have been removed and premises disinfected.

Individual reports of cases must be made by the physician to the assistant commissioner of health for the division in which the disease occurs and by him to the commissioner of health.

Doubtful cases of this disease must be temporarily isolated until it is determined that they are not of the epidemic type.

*Typhoid and paratyphoid fever.*—All cases of these diseases must be isolated. All but those in immediate contact with the case may come and go without restriction. Explicit directions must be given relative to, and the prevention of, the spread of the disease.

Excreta from the patient must be disinfected with quicklime or by boiling. Dishes, bedding, etc., in use must be disinfected with a solution of formalin or by boiling. The source of the infection must be sought for and necessary measures taken to prevent the spread of the disease. During an epidemic, antityphoid vaccine must, on request, be administered free of charge by the local health officers. Vaccine must be furnished by the city, community, or Territory.

When a case has developed in a lodging house, hotel, or camp, the person who cares for the patient is prohibited from working at anything having to do with the preparation of foods. As far as possible, this prohibition also applies to private families. During the summer months rooms in which typhoid patients are treated must be screened, either at the expense of the family or the city or Territory.

All cases of so-called "typho-malaria" or malaria, unconfirmed by microscopical examination must be treated as typhoid fever.

*Malaria.*—Cases of this disease must be isolated as long as the disease remains in the acute form.

*Anthrax and glanders.*—Health officers are required to report to the assistant commissioner of health individual cases of anthrax and glanders in human beings. All such cases must be isolated until the termination of the disease.

*Tuberculosis.*—Physicians are required to report in writing to the local health officer cases of tuberculosis within five days after such cases have come under their observation. Upon the death or the removal of a patient with tuberculosis the premises must be thoroughly disinfected within five days, the expense of such disinfection to be paid by the owner of the premises. If the owner refuses to disinfect, the local board of health may do so at the expense of the city, the cost thereof being a lien against the premises.

*Leprosy.*—Upon the report of a case, the commissioner of health is required to decide upon its disposition. Patients who are discharging the bacilli of leprosy from ulcerated surfaces must be segregated and quarantined. Local authorities are prohibited from imposing quarantine in case of leprosy unless permission is obtained from the territorial commissioner of health.

*Favus.*—If, upon examination, a reported case proves to be favus, a child is prohibited from attending any school until cured, and such other measures must be taken to prevent the transmission of the disease as are required by the commissioner of health.

*Trachoma.*—No child suffering from trachoma is permitted to attend any school, except when a competent physician certifies in writing that the case is not in a communicable stage.

*Hookworm.*—Persons suffering from hookworm must be given proper treatment and isolated until the stools are free from eggs. Physicians and others are urged to cooperate with the authorities in securing information as to the existence of the disease in the Territory.

*Rabies.*—A case of rabies in persons must be reported by wire to the commissioner of health.

*Actinomycosis.*—Suspicious cases of this disease should be reported to the assistant commissioner of health. Isolation of the case is not required.

*Pellagra, amebic dysentery, trichinosis, echinococcus infection, and Japanese lung fluke.*—Physicians are urged to report in detail the occurrence of any of these diseases within the Territory.

*Further regulations.*—Patients may be discharged from quarantine after recovery. Contacts may be discharged at the termination of the period of incubation of the



disease after they have been personally seen by the health officer and have taken an antiseptic bath and put on clean clothes.

Before quarantine or isolation may be discontinued the room, house furniture, bedding, etc., must be fumigated.

Attending physicians are required to take all necessary precautions to prevent the spread of the disease.

It is prohibited for any city, community, or health district to quarantine against another city, community, or health district without the consent of the territorial commissioner of health.

Health officers are authorized to temporarily quarantine or isolate any suspicious cases pending a conclusive diagnosis.

Domestic animals must be excluded from the house in the case of first-group diseases, and from the sick room in the case of second-group diseases. If they are inadvertently admitted to the house or room during quarantine or isolation they must, upon the termination of the disease, be given a disinfectant bath.

In case of death, the health officer is required to continue quarantine or isolation measures until the end of the period of incubation in contacts.

In the case of smallpox, where there are no unvaccinated contacts, this further quarantine is unnecessary.

In cases of the exanthematous diseases of childhood, in diphtheria, infantile paralysis, or cerebrospinal meningitis, where there are no other nonimmune children surviving, quarantine may terminate immediately after disinfection.

In cases of diseases mentioned in the preceding paragraph adults may be released from quarantine or isolation after disinfection but may not again enter the premises until quarantine or isolation is discontinued.

After death from a first-group disease, no one except a licensed embalmer or a clergyman is permitted to enter the premises until after disinfection.

No milk or food products may be taken into a house under quarantine or isolation unless the container or wrappings can be destroyed. All containers for milk which have been used or handled by persons suffering from a communicable disease requiring quarantine or isolation must be sterilized before they may be used again.

The sale of milk or other dairy or food products from premises where diseased persons are undergoing quarantine or isolation is forbidden, unless the articles are prepared and handled by persons entirely separated from the sick, and then only upon written permission of the local health officer.

No person suffering from open pulmonary tuberculosis or any chronic typhoid or diphtheria carrier is allowed to do any work involving the handling of dairy, market, or food products in an unwrapped state.

The use of the common drinking cup and common towel is forbidden on common carriers, in public buildings, parks, hospitals, schools, hotel lobbies, etc.

Spitting on floors in public places or on sidewalks is forbidden.

*School hygiene.*—No teacher, pupil, or janitor may attend school from any house in which there is smallpox, varioloid, scarlet fever, diphtheria, or any other communicable disease. Nor can he return to school from any such house until three weeks have elapsed from the beginning of convalescence of the patient, or upon the certificate of a reputable physician.

In the case of whooping cough, chicken pox, and measles not of a malignant type, teachers, pupils, or janitors who have had the disease and entirely recovered may attend school.

Children suffering from a disease requiring quarantine or isolation must be excluded from school. All children in the same family must be excluded as long as the disease exists in the family, unless specifically provided for by regulation. In contagious conjunctivitis (including trachoma not in active stage), impetigo contagiosa, mumps, pediculosis, ringworm, scabies, or any suppurative disease of a foul or offensive nature.

it is required to exclude children from school. However, in the case of ringworm, scabies, or pediculosis the child may continue school at the discretion of the health officer if proper treatment is instituted.

All children in a community where smallpox actually exists must be excluded from school attendance until vaccinated, unless they can present a certificate from a legally qualified physician that they have been vaccinated successfully within seven years or can give evidence that they have had smallpox.

Whenever any pupil, janitor, or teacher in any school is afflicted with any disease calling for disinfection, the building, room, or rooms must be disinfected before they may again be occupied.

Whenever any principal or teacher believes that a pupil is suffering from or has been exposed to any communicable disease requiring exclusion from school, the child must be sent home and a report made immediately to the local health officer. Such child can not again attend school until a certificate is presented from a qualified physician that the child is not suffering from any disease.

Whenever any territorial or local health authority deems it advisable to close a school on account of the prevalence of any communicable disease, a written notice must be served on the school board or responsible official, directing that the school or schools be closed immediately, and no such school may be reopened until authorized by the health officer.

*Disinfectants.*—Disinfection or fumigation is carried out according to the recommendations of the different diseases. It is required for all diseases of groups 1 and 2 before the patients or contacts are released from quarantine or isolation. Disinfectants recognized under these regulations are those already mentioned and formaldehyde gas, using of the latter at least 16 ounces of a 40 per cent solution of formalin in a generator, or by oxidation, for each 1,000 cubic feet of room space. All openings must be closed and the cracks sealed with strips of paper. The time of exposure must be at least six hours. When a schoolroom has been occupied by a person suffering from any of the diseases of group 1—smallpox, anterior poliomyelitis, epidemic cerebrospinal meningitis, or measles—it must be thoroughly disinfected before being used again. The same applies to private schools and to parochial and Sunday schools. When a communicable disease has occurred on a vessel or in a railroad coach, such common carrier may not be used again until disinfected by the health officer. When a communicable disease has been present in a place where food is sold or which is used for dairying purposes and the sale of food or dairy products has been discontinued, the premises must be thoroughly disinfected before being used again.

## **MUNICIPAL ORDINANCES, RULES, AND REGULATIONS PERTAINING TO PUBLIC HEALTH.**

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### **BALTIMORE, MD.**

#### **Milk and Cream—Production of. (Reg. Commissioner of Health, Jan. 27, 1915.)**

The term "dairy," as used in these rules and regulations, shall be understood to mean any building or part thereof, or any place or situation where the chief business is the handling of milk or cream.

No dairy shall be operated in any place that, in the opinion of the commissioner of health, or his duly authorized representatives, is too close to water-closets, privies, stables, manure pits, chicken houses, or any place of an objectionable or possibly contaminating character.

No person or persons, firm, or corporation, which retail or wholesale milk or cream within the corporate limits of the city of Baltimore, shall use a cellar or basement or yard for the purpose of storing, handling, or distributing the same.

All dairies shall be provided with ventilation by means of windows, air shafts, air ducts, or mechanical apparatus, which, in the opinion of the commissioner of health or his duly authorized representatives, are sufficient to insure free circulation of fresh air at all times.

Rooms in which milk or cream is handled or sold shall have sunlight and such artificial light as the commissioner of health or his duly authorized representatives may require.

Floors, walls, and ceilings in dairies shall be kept clean at all times. The walls and ceilings in said dairies shall be kept well painted or whitewashed; if whitewashed, this shall be done at least once a year and at such other times as the commissioner of health or his duly authorized representatives may deem necessary.

Dairy floors must be water-tight, constructed of cement, concrete, or other non-absorbent material, and properly drained to a point or points at which drainage is disposed of.

Dairies shall be well screened and free from flies and offensive odors at all times.

Unnecessary articles, such as dirt, rubbish, clothing, boxes, utensils, harness, lanterns, papers, bags, domestic animals, and other articles not required or necessary for the proper operation of a dairy, shall not be kept in a dairy.

Dairies must have the following minimum equipment: A proper ice box or refrigerator for the storage of milk, at all times at a temperature of 50° F. or less; an abundance of hot and cold water at all times; necessary brushes and tubs for washing bottles and a suitable place for storing and draining them.

Milk must not be bottled in any place other than a dairy.

Bottle caps shall be kept in a clean, dust-proof container.

All bottles and other containers, apparatus, and utensils used in handling milk or cream shall, immediately after use and before being refilled or reused, be thoroughly cleansed and sterilized.

A dairy must not contain any milk piping that can not be readily taken down, taken apart, and cleaned.

All persons engaged in handling milk in dairies shall keep their persons and their clothing in a clean condition. No spitting or smoking shall be permitted in dairies.

Bottles containing unpasteurized milk must not be labeled "pasteurized" or in any other way mislabeled. Also all pasteurized milk must be so labeled.

Any violation or disobedience of, neglect or refusal to comply with, the foregoing rules and regulations shall be deemed sufficient cause for the commissioner of health or his duly authorized representatives to revoke a permit for the sale or handling of milk or cream in Baltimore City.

[These regulations were effective Apr. 1, 1915.]

#### CINCINNATI, OHIO.

##### **Foodstuffs—Protection of. (Reg. Bd. of H., Dec. 29, 1915.)**

1. No prepared foodstuffs, such as bakers' goods, confectionery, shelled nuts, etc., dried fruits or vegetables, such as dates, figs, peaches, prunes, apricots, or potato chips, and desiccated vegetables, etc.; cereal products, such as tapioca, breakfast foods, noodles, etc.; pickled products, such as apple butter, jams, jellies, sauer kraut, etc.; fresh meats or meat products, such as dried, salted, or smoked fish, veal loaf, pickled pigs' feet, mince meat, chipped beef, boiled ham, fresh fish, plucked poultry or game birds, dressed or undressed rabbits or squirrel, etc.; butter, butterine, oleomargarine, lard, lard compounds or substitutes, cheese, or any other foods prepared for eating which are not protected by a fly and dust proof wrapper and which are subject to attack of worms or flies, shall be displayed for sale unless protected from flies, dust, dirt, and handling by any other person except the seller, and from all other forms of injurious contamination by suitable coverings of glass or other approved method.

2. All counters or stands from which the same is dispensed shall be equipped with glass rail, with top protection of ample size to prevent any person except the seller from touching the food products.

3. All fruits and vegetables or other articles of food exposed on sidewalks or in doorways, or in inclosed buildings, shall be kept at a height of not less than 2 feet above the sidewalk or floor and shall be fully protected by some approved method which is efficient from dogs, flies, insects, dust, or handling by any person except the seller: *Provided*, That the provisions hereof shall not apply to the display of potatoes, turnips, bananas, or such other fruits or vegetables that have to be skinned, peeled, or cooked before using. Furthermore, this regulation shall not affect wholesale dealers of fruits or vegetables engaged in loading and unloading goods for transportation.

4. Any person violating any of the provisions of this regulation shall, upon conviction thereof, be punished as provided by law.

##### **Ice Cream—Sale and Dipping of, in Public Grounds and Thoroughfares. (Reg. Bd. of H., Dec. 29, 1915.)**

1. No person by himself or by his servant, agent, or employee, or as the servant, agent, or employee of another person, partnership, or corporation, shall sell or offer for sale on any of the highways or public grounds within the city of Cincinnati, county of Hamilton and State of Ohio, any ice cream, nut ice cream, fruit ice cream, French ice cream, or flavored ices or ice balls, except the same be contained in sealed or locked cans or other receptacles approved by the board of health of the said city of Cincinnati, said cans or other receptacles to be sealed immediately after filling the same, which filling and sealing shall be done only in a plant where the same is manufactured, the sanitary condition of which shall be approved by this board.

2. The dipping of any ice cream, nut ice cream, fruit ice cream, French ice cream, or flavored ices, or the manufacturing of ice balls upon any thoroughfare or public grounds of said city of Cincinnati, is hereby prohibited.

3. Any person violating any of the provisions of this regulation shall, upon conviction thereof, be punished as provided by law.

**Offensive Trades—Regulation of. (Reg. Bd. of H., Sept. 8, 1915.)**

PARAGRAPH 1. No person, firm, or corporation shall boil, heat, cook, steam, evaporate, dry, render, or reduce any dead animals, bones, fat, grease, feathers, blood, tankage, tankage water, hair, or other organic substances unless the process is carried on and conducted in modern steam-tight tanks equipped with suitable and efficient pumps and apparatus to condense, burn, and completely destroy the obnoxious odors created in said process, and unless the apparatus and mode of operation are approved by the board of health.

PAR. 2. Every person, firm, or corporation doing business with apparatus as provided in paragraph 1 of this regulation shall, in operating the same, use sufficient water, heat, etc., so as to prevent at all times nuisance and obnoxious odors.

PAR. 3. All buildings where such business is carried on shall be provided with cement floors, adequate and suitable drainage, and the tanks, floors, walls, etc., shall be kept clean and sanitary. Receptacles used in the collection and delivery of the raw materials must be of metal construction and kept covered while in use, and must be thoroughly washed out after emptying. Fly traps must be provided during the warm months and means must be employed to prevent the breeding of flies upon the premises.

PAR. 4. Any violation of the above regulation shall be punished as provided by law.

PAR. 5. This regulation shall take effect and be in force from and after the earliest period allowed by law.

PAR. 6. Regulations Nos. 25, 26, and 27 of this board as revised and adopted June 5, 1912, are hereby repealed.

**JACKSON, MICH.**

**Communicable Diseases—Notification of Cases—Quarantine. (Ord. June 1, 1915.)**

SEC. 8. The keeper of any hotel, boarding house, or other public house, or the owner or occupant of any private house, or a teacher in any school in which any person may be sick with any communicable disease shall report the same to the health officer if there be no attending physician. The physician who shall have a patient afflicted with any such disease shall forthwith report the same to the health officer. The keeper, owner, or occupant of any such public house or private residence shall keep it closed against all persons desiring to visit the same, and shall prevent the occupants of said public house or private residence from leaving said premises until such time, as in the opinion of the health officer, all danger of communicating the disease from said house or residence or from any of the inmates thereof shall have passed: *Provided*, That physicians or clergymen in attendance upon such sick person or persons may go to and fro on taking such precautions as may be required by the health officer or by law.

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SEC. 10. No person shall bring or cause to be brought into the city of Jackson any person infected with a communicable disease.

**Foodstuffs—Protection and Sale—Slaughterhouses. (Ord. Sept. 27, 1915.)**

SECTION 1. Foodstuffs, for the purposes of this ordinance, shall mean all articles of food or diet, including meat, fish, fowls, vegetables, fruit, berries, bread, baked goods, butter, condiments, and confections, whether offered for sale in their natural

state, prepared, or manufactured from raw products. "Person," as used in this ordinance shall mean individual, firm, or corporation.

SEC. 2. No foodstuffs of any description which may be liable to contamination shall be kept or offered for sale at any place or transported within this city unless so covered or screened as to be protected from insects and contact with animals and handling by the public. No foodstuffs shall be displayed, sold, or exposed for sale upon any sidewalk or between the curb and property line. Containers in which berries or soft fruits or vegetables have been sold shall not be used again for a like purpose. No article of food shall be wrapped in any but clean, fresh wrapping paper.

SEC. 3. No person shall keep or offer for sale, prepare for consumption or manufacture any foodstuffs in any market, store, bakery, restaurant, hotel, public eating place, factory, or railroad station unless such place be maintained in a clean and sanitary condition and provided with proper screens and all necessary means of protection from contamination. Such place must be provided with suitable toilet facilities maintained in a room separate from that in which any foodstuffs are manufactured, prepared, kept, or offered for sale. All attendants and employees handling foodstuffs which might become contaminated shall keep their persons clean and wear clean clothing, and no person suffering from a communicable disease shall be employed in or about any place in which such foodstuffs are manufactured, prepared, or kept for sale.

SEC. 4. No meat shall be kept or offered for sale within this city unless the carcass or piece from which the same is cut bears the stamp of Federal inspection or a tag showing the name of the person slaughtering said meat and the place at which said slaughtering was done: *Provided, however,* That any person engaged in slaughtering animals whose meat is to be sold or offered for sale may use a stamp in lieu of the tag, if same be submitted to and approved by the health officer.

SEC. 5. No meat or other foodstuffs shall be kept or offered for sale which comes from any slaughterhouse the owner or proprietor of which refuses to permit the inspection of the same by any whose duty it is to make such inspection or who refuses or neglects to construct, repair, or maintain the same in accordance with the requirements or the rules and regulations of the board of health of this city. No person shall keep, use, or maintain any slaughterhouse or other place for the slaughtering of animals within the city limits of this city except by the permission of the health officer, neither shall any animal be slaughtered for meat within this city unless such permission be obtained.

SEC. 6. No live poultry shall be kept in any street or other public place or room or compartment in which meat or other foodstuffs are kept or offered for sale, nor in the basement or any building. No person shall kill poultry except in a room separate from any room in which foodstuffs are kept or offered for sale. Any place where poultry is killed shall be maintained in a sanitary manner and all feathers, offal, and other waste products must be immediately removed and properly disposed of.

SEC. 7. No flesh of any animal or fowl shall be kept, sold, or offered for sale within this city if such animal or fowl has been affected with tuberculosis, cholera, or other disease rendering such animal or fowl unwholesome or unsuitable for food.

SEC. 8. All markets, stores, bakeries, restaurants, hotels, public eating places, factories, railroad stations, or other places, or vehicles in which foodstuffs are kept, transported, manufactured, or offered for sale shall be provided with necessary waste receptacles or garbage cans which shall be provided with tight covers and be so constructed as to prevent leakage and to prevent odors escaping therefrom and which shall be kept in a sanitary condition.

SEC. 9. All foodstuffs sold by weight at retail shall have the net weight thereof or price per pound with total charge for each item plainly printed, written, or stamped upon the wrapper, container, or package in which such foodstuffs are sold, or upon

a slip or invoice to be furnished the customer at the time of sale or delivery: *Provided*, That this section shall not apply to foodstuffs delivered to the purchaser at the store or place of business of the retailer.

SEC. 10. All bread of every description and other baked goods shall be made of good, wholesome materials and under sanitary conditions. All loaves of bread, except hearth bread, before being sold or placed on the market for sale shall be inclosed by the baker in sanitary wrappers upon which shall be plainly printed, written, or stamped the name of the baker producing the same. Loaves of bread when baked and ready for sale which weigh 1 pound or 2 pounds each, avoirdupois weight, shall be known as standard 1 pound or 2 pound loaves, as the case may be. After December 1, 1915, no bread except hearth bread shall be sold or exposed for sale, either by the baker or retailer, of different weight than the standard loaves, unless there shall also be plainly printed, written, or stamped upon the outside of the wrapper in which each loaf is inclosed, or upon a slip inclosed within the wrapper, the true weight of each loaf at the time it was ready for sale. No bakery shall hereafter be established in any cellar or basement.

SEC. 11. It shall be the duty of the sealer of weights and measures, from time to time and as often as twice each year, to visit all places where bread is sold, baked for sale, or offered for sale at wholesale or retail within the city of Jackson, and to stop and examine vehicles carrying any loaves of bread for the purpose of sale, and by inspecting and weighing the bread, to determine whether it is being sold or offered for sale in violation of the provisions of this ordinance, and if such violations are discovered, it shall be his duty to make proper complaint. The weight of any loaf of bread within 18 hours after it is baked shall be deemed to be its weight at the time it was ready for sale, unless it be shown to the contrary by competent proof. For the purposes of this ordinance the sealer of weights and measures shall have all the power of the sanitary inspector.

SEC. 12. The board of health may from time to time make such rules as it may deem necessary for the regulation and inspection of places where foodstuffs are manufactured, prepared, handled, kept for sale, or sold. It shall be the duty of the health officer either in person or by his assistants, of the sanitary inspector and of the sealer of weights and measures to visit all places as often as may be necessary and to take note of any violation of this ordinance, and to apply such methods of inspection as may be prescribed by the board of health. The health officer, in his discretion, may condemn and destroy any foodstuffs which are sold or offered for sale in violation of this ordinance.

SEC. 13. Any person violating any of the provisions of this ordinance or refusing or neglecting to perform any of its requirements, or who shall refuse admittance to or shall obstruct the health officer, his assistants, the sealer of weights and measures, or any other officer when in the performance of his duties or any person who neglects or refuses to comply with the lawful orders of any of such officers or with the rules and regulations of the board of health, shall be punished by a fine of not more than \$50 or by imprisonment for not more than 60 days, or by both such fine and imprisonment, in the discretion of the court.

SEC. 14. An ordinance "To regulate the sale, inspection, or condemnation of food and to provide for the appointment of a food inspector," passed August 6, 1888, and an ordinance "Relative to slaughterhouses and the slaughtering of animals," passed January 27, 1862, and an ordinance "Creating the office and defining the duties of flour and grain inspector," passed March 6, 1885, and an ordinance "Regulating the manufacture and sale of bread," passed August 6, 1877, are hereby repealed.

**Milk and Milk Products—Production, Care, and Sale—Ice Cream. (Ord. Apr. 27, 1915.)**

SECTION 1. No person, except one who keeps not more than two cows for family use and sells the surplus milk from those cows, shall engage in the sale, delivery, or distribution of milk, nor shall any person engage in the manufacture, sale, delivery, or distribution of ice cream within the city of Jackson without a license therefor, as hereinafter provided. For the purpose of this ordinance the word "person" shall mean individual, partnership, or corporation. "Milk" shall include skimmed milk, sour milk, buttermilk, and cream.

SEC. 2. Persons desiring to engage in any such business within the city of Jackson shall make written application for said license to the city clerk, who shall issue a license to any person complying with the provisions of this ordinance upon payment to the city treasurer of the following fees:

For engaging in the business of the sale, delivery, and distribution of milk the sum of \$10 for each wagon or other vehicle used in said business, and also the sum of \$2 for each producer from whom milk is procured by the applicant for said license. The applicant shall be entitled to reimburse himself for the latter fee by collecting the same from the producer.

For maintaining a milk plant, depot, or creamery within the city of Jackson the sum of \$10.

For the manufacture and sale of ice cream the sum of \$10 for each factory or place where ice cream is manufactured for sale.

For peddling ice cream within the city of Jackson, whether by the manufacturer or other person, the sum of \$10 for each wagon or other vehicle used in said business. *Provided*, That no fee shall be charged for wagons or other vehicles used only in delivering ice cream sold at a factory or place of business upon which a license fee has been paid.

All other persons, including grocers, selling or keeping for sale at wholesale or retail, and to leave the premises, milk or ice cream, or any or all of these products, within the city of Jackson shall pay a license fee of \$1.

The money thus collected, together with such sums as may be received as fines for the violation thereof shall be used for the purpose of paying a milk inspector and the expense of enforcing this ordinance. All licenses shall expire upon May 1 following the date of issuance.

SEC. 3. The application for such license shall be made upon a blank furnished by the board of health and shall contain such information in regard to the applicant or his business as shall be, from time to time, required by said board, and shall also contain an agreement on the part of the applicant that his license may be revoked at any time by the city commission if such applicant shall violate any of the provisions of this ordinance or the rules or regulations of the board of health or of his application for license, and in case of selling or delivering milk within the city by means of wagons or other vehicles, or from a milk plant, depot, or creamery the application shall also contain the names and locations of all producers from whom he obtains milk, and a further agreement that in case he shall thereafter obtain milk from producers other than those named in the application, he will report their names to the city clerk and pay a fee of \$2 for each of such producers, and said application shall contain the further agreement that the milk inspector may, as often as he may deem necessary, take reasonable samples of the milk offered for sale by the applicant for inspection and analysis. The applicant shall also at the time he makes application for license, or thereafter in case he obtains milk from producers other than those from whom he was obtaining milk at the time of the application, present a written consent from each person from whom he obtains milk granting permission to the health officer of the city of Jackson, the milk inspector or any member of the board of health of said city or



their employees free and open access to his dairy or premises for the purpose of making an inspection of the premises or herds and the consent of the owner of said herd to apply the tuberculin test as hereinafter provided and to pay the reasonable expense therefor. Said producer's permit shall be substantially in the following form:

PRODUCER'S PERMIT.

I, ....., a producer of milk sold or to be sold in the city of Jackson, hereby grant to the health officer of said city, the milk inspector or any member of the board of health of said city or its employees, free and open access to my dairy, herd, premise, utensils, wagons and conveyances, for the purpose of making inspection of the same so long as milk of my production shall be sold in said city. I also agree that the tuberculin test may be applied to my herd as required by the ordinances of said city and that I will pay the reasonable charges therefor. In case a contagious disease appears in my family or in the family of anyone employed around my herd or dairy, I will immediately report that fact to the health officer of the city of Jackson.

SEC. 4. The city clerk shall number each license consecutively in the order of their issuance and the licensee, if a distributor of milk shall at all times have the number of his license displayed in plain large letters on the side of each vehicle used in distributing or selling milk under the provisions of this ordinance. Licenses shall not be transferable. No license shall be issued until the application therefor has been approved by the health officer.

SEC. 5. No person shall, after September 1, 1915, sell or offer for sale within the city of Jackson any but clean raw milk from herds tuberculin tested in accordance with the provisions of this ordinance, provided that milk to be used for ice cream or butter, if pasteurized, need not be from tuberculin tested cows. Homogenized cream approved by the health officer or milk inspector may also be used for ice cream.

SEC. 6. The health officer, in consultation with the board of health, and with its approval shall appoint a milk inspector who shall serve at the pleasure of said health officer and shall receive such salary as may from time to time be fixed by the city commission.

It shall be the duty of said milk inspector, at least once a year and as often as may be required by the board of health, to investigate and report upon each herd and the premises from which the milk comes which is sold or offered for sale within this city and the method of handling, storing, cooling, and distributing the milk. A record of these examinations shall be kept on the score cards for the production of sanitary milk issued by the United States Department of Agriculture. If the total score reaches the 60 mark given on such score card, the milk produced from such herd shall be deemed to be good milk. If it appears, after examination, that good milk is not being produced, the distributor thereof shall be so notified in writing, by personal service or by registered mail, by the health officer and the sale of milk from such herd shall be unlawful until such time as further examination may show that good milk is being produced.

SEC. 7. It shall be the duty of the health officer to ascertain that cows from which the licensee obtains milk for sale are free from tuberculosis or other infectious or contagious diseases. No cow shall be considered free from tuberculosis except after showing no response to the tuberculin test as applied by any person approved by the State veterinarian and the local health officer. The cows from which the licensee obtains milk for sale unless otherwise ordered by the health officer, shall be subjected to the tuberculin test at least once each year. No distributor shall after September 1, 1915, sell or offer for sale milk produced from any herd unless all of the cows of such herd are free from tuberculosis as determined by a test as above provided. The health officer shall in all cases be notified before the tuberculin test is applied and after application of the test the animal must be tagged in such manner as to supply a record of the examination. In case any distributor shall desire to obtain milk from producers other than those named in his application for license, he shall report their names to the city clerk and shall pay the treasurer a fee of \$2 for each of said producers, in case said

fee has not already been paid for such producers, before the distributor shall be entitled to sell the milk of such producers within this city. In all cases the reasonable expense of making the tests for tuberculosis or other diseases shall be paid by the owner of the herd.

SEC. 8. No milk or ice cream shall be offered for sale or sold to the consumer in the city of Jackson which is unwholesome, adulterated, or impure. For the purpose of this ordinance, milk shall be considered unwholesome, adulterated, or impure when it

- (a) Contains any preservative whatever.
- (b) Has any water or other foreign substance added.
- (c) Has a temperature of more than 60° F.
- (d) Has, if milk, except cream, less than 3 per cent fat.
- (e) Has, if cream, less than 18 per cent fat.
- (f) Has not a specific gravity between 1,029 and 1,033 at 60° F. This does not apply to cream or buttermilk.
- (g) Comes from cows fed upon swill, garbage, or refuse.
- (h) Is drawn from cows within 15 days before or 5 days after parturition.
- (i) Comes from localities where the attendants are affected with or exposed to infectious or contagious diseases.
- (j) Is placed in containers which are not properly washed or sterilized or are washed or rinsed with polluted water.
- (k) Shows by test more than 200,000 bacteria per cubic centimeter, or if cream more than 500,000 per cubic centimeter.

SEC. 9. All pasteurization of milk shall be done at 145 degrees for 25 minutes, holding process or the equivalent thereof, in a pasteurizing plant approved by the board of health and with apparatus equipped with self-recording temperature device, the plant to score 70 or more, on milk plant score card. No milk shall be pasteurized more than once. The bacterial count before pasteurizing shall not be over 1,000,000 and after pasteurizing not over 50,000 per cubic centimeter. All such milk shall be put in sterilized containers and bottled at the plant. Pasteurized milk offered for sale must be labeled "Pasteurized."

SEC. 10. It shall also be the duty of the milk inspector to inspect all pasteurization plants, creameries, ice cream factories, milk depots and all places where milk or ice cream, or both, are kept for sale within the city of Jackson as often as may be required by the board of health, but at least once each year.

SEC. 11. No milk shall be used or sold which comes from any place where there is a contagious disease except by permission of the health officer of the city of Jackson or until after fumigation of the premises by said health officer or his duly authorized agent, and permission obtained in writing from said health officer. Bottles left at any place where there is a contagious disease shall not be collected and used until after disinfection under the direction of said health officer.

SEC. 12. Unless otherwise provided herein, milk shall not be sold or offered for sale or delivered, except in bottles or sealed cans, which sealed cans shall be of not less than 1 gallon capacity, and which bottles or sealed cans shall not be used for any other purpose. Bottles and cans may be filled only at the dairy and such other places as the health officer or milk inspector has approved. The cleansing and sterilizing of all bottles and milk utensils shall be subject to the approval of the health officer or milk inspector.

SEC. 13. For the purpose of carrying out the provisions of this ordinance the board of health, health officer, milk inspector, or his assistants, shall have the right at any and all times to enter the premises of any person licensed under this ordinance to examine and inspect the dairy and herd, and to appropriate a sufficient amount of milk or milk product for examination and analysis. The results of such examination shall be public records and may be published. The board of health, health officer,

or milk inspector shall have equal rights upon the premises of any one from whom a licensee procures or has given notice of his intention to procure milk.

SEC. 14. The health officer, milk inspector or his assistants may condemn or exclude from sale, delivery, or distribution in this city any milk which has been produced in whole or in part on any premises to which access for the purpose of inspection has been refused the board of health, health officer, milk inspector or assistants. The said board of health, health officer, milk inspector or assistants may seize and confiscate any milk held, offered, or exposed for sale or held with intent to sell, deliver, or distribute in this city contrary to any part of this ordinance, and may pour out, color, or otherwise denaturize any milk so seized to prevent the use of same for food purposes. Any of the said officials or any of their assistants may affix or cause to be affixed to any can, vessel, receptacle, or other container containing milk a card or tag stating the same has been condemned and the reason therefor; and the said tag or card so affixed shall be deemed due and sufficient notice of such condemnation. No milk condemned as herein provided shall be used for human food, sold, offered or exposed for sale, delivery, or distribution in this city.

SEC. 15. Skimmed milk, sour milk, or buttermilk may be sold, but must be plainly marked and transported in containers approved by the health officer. No milk or milk products except ice cream shall be dipped from open cans. Rusty and battered cans and utensils are prohibited. It shall be the duty of all patrons to wash all bottles and cans in scalding water and return to the distributor from whom received. It shall be unlawful for patrons to use such bottles or cans except as containers of milk.

SEC. 16. No person licensed hereunder shall use any can, bottle, or container unless his name or other distinguishing mark, registered with the health officer, shall appear in a conspicuous place thereon: *Provided*, Such name or distinguishing mark may be printed upon caps or other sealing device of bottles.

SEC. 17. Any person producing milk for sale or selling milk in any manner or form within the city of Jackson who advertises, publishes, or makes any false statement in regard to the cows from which he obtains milk having been examined for tuberculosis or any other infectious disease under the provisions of this ordinance, or who makes any untrue or false statement regarding the condition of his herd, the purity of his milk, the premises from which his milk comes, the methods of handling, storing, cooling, and distributing of his milk, shall be deemed guilty of a violation of this ordinance and be subject to the penalties it imposes.

SEC. 18. Any person owning, managing, or operating any hotel, restaurant, or other place where meals or lunches are served or sold in said city who shall serve, sell, or expose milk or ice cream for sale shall be subject to the requirements of this ordinance and the inspection herein: *Provided*, That no license shall be required from such hotel, restaurant, or other place unless milk shall be sold wholesale or retail and the same to leave the premises. Milk in any such place shall be served only from the original bottles.

SEC. 19. All wagons or other vehicles used for the sale, delivery, or distribution of milk shall be covered with canvas or other suitable material which will adequately protect the contents of the said wagon or vehicle from the rays of the sun, dust, and insects; And all wagons, vehicles, crates, and utensils used for the sale, delivery, distribution, handling, and storage of milk and ice cream shall at all times be kept in a clean and sanitary condition and free from any substance or material which may contaminate the said milk or ice cream.

SEC. 20. The board of health may from time to time adopt such rules and regulations as it may deem necessary to govern the production, sale, and inspection of milk and ice cream and the inspection of herds from which milk is being produced for sale within the city of Jackson.

SEC. 21. Whenever it shall come to the knowledge of the city commission that any person is violating or has violated any of the provisions of this ordinance or the rules

and regulations of the board of health or any agreement contained in his application for a license, he shall be cited before the city commission to show cause why his license should not be revoked, and if, after opportunity be given him to be heard in his own behalf, it shall appear that such person has willfully violated any of such provisions or agreements, his license shall be revoked by the city commission.

SEC. 22. Any person violating any of the provisions of this ordinance, or the rules and regulations of the board of health, or any agreements contained in his application for a license shall be punished by a fine not exceeding \$100 or by imprisonment in the county jail not exceeding 90 days or by both such fine and imprisonment in the discretion of the court. Every day that a violation of this ordinance continues shall be treated as a separate offense.

SEC. 23. An ordinance entitled "An ordinance to regulate and control the selling of milk within the city of Jackson, and to license vendors thereof, and to regulate the care of the cows from which milk is sold, and for the inspection of dairies and dairy herds and of milk," passed March 20, 1899, and all other ordinances or parts of ordinances inconsistent herewith are hereby repealed.

#### **Board of Health—Organization, Powers, and Duties. Health Officer—Powers and Duties. (Ord. June 1, 1915.)**

SECTION 1. The city commission shall constitute the board of health, and each session of the city commission shall be deemed also to be a session of the board of health: *Provided*, That no record of any such session of the board of health need be kept unless some action be taken by the city commission in its capacity as the board of health, but every action taken by the board of health shall be recorded in a book separate from the records of the city commission. The mayor shall be ex officio president of the board of health and the city clerk shall be ex officio clerk of said board. Special meetings of the board of health may be called in the manner provided for the calling of special meetings of the city commission.

SEC. 2. The board of health shall have general supervision over the health of the city and the city hospitals and shall from time to time take such steps as it may deem proper to promote the cleanliness and sanitary condition of the city. The health officer shall be the executive officer of the board of health. He shall have the right to take part in its deliberations, but shall have no vote.

SEC. 3. Subject to the orders of the board of health, the health officer shall have power and it shall be his duty:

(a) To make, or cause to be made, diligent inquiry with respect to all nuisances, sources of filth, and causes of sickness of every description in this city which are or may be injurious to the public health and to abate the same.

(b) To detain and examine, or to cause to be detained and examined, every person coming from a place infected with any communicable disease when, in his opinion, such detention and examination is necessary in order to prevent the introduction of the same into the city.

(c) To cause any nonresident of this city who is infected with any communicable disease to be returned to the place whence he came or to be removed to the detention hospital.

(d) To cause any resident of this city who is infected with any communicable disease to be removed to the detention hospital if, in the opinion of the city physician or health officer, the removal of such person is necessary for the preservation of the public health: *Provided, however*, That such removal can be effected with safety to the patient.

(e) To destroy any furniture, wearing apparel, goods, wares, or merchandise, or other personal property, which shall be exposed to or infected with a communicable disease: *Provided, however*, That such property shall first be appraised by two dis-

interested persons in order that remuneration may be made therefor by the city commission or by the board of supervisors.

(f) To rent proper buildings to be used for detention hospitals in case the present detention hospital is found insufficient, and to provide such furniture, medicines, and other articles as may be necessary to conduct such detention hospitals: *Provided*, That no building shall be so rented by the health officer for a longer period than one week without the approval of the board of health.

(g) To require the occupant of any dwelling house, store, shop, or other building in which there shall be any person sick with a communicable disease to put and maintain in a conspicuous place on the front of said building a card or sign, to be furnished by the board of health, on which shall be written or printed in large letters the name of the disease, and in case of the neglect or refusal of any person to comply with such requirement he shall be deemed to have violated this ordinance.

(h) To perform all other duties required by the general laws or by the ordinances of this city.

SEC. 4. Whenever it shall come to the knowledge of the health officer that any closet, sink, privy, private drain, manure pile, garbage, or any other nuisance injuriously affecting the public health, shall need cleansing, altering, relaying, or removing in order to protect public health, he shall make or cause to be made an examination of such alleged nuisance and if in his opinion such a nuisance exists, he shall thereupon cause the owner or occupant thereof to be notified in writing (either by personal service or by leaving such notice at his place of residence, or in case the premises are unoccupied, by posting the same in a conspicuous place thereupon), to cause the same to be cleansed, altered, relayed, repaired, removed, or abated within a time to be fixed by said health officer, not less than three days from the date of service of such notice, and in case of refusal to comply with the requirements of such notice, the person so notified shall be subject to the penalties prescribed by this ordinance, and the health officer may cause to be cleansed, altered, relayed, repaired, or removed such closet, sink, privy, private drain, manure pile, garbage, or other nuisance, and the expense thereof shall be a lien upon the lot or premises affected thereby and may be collected in the same manner as a special assessment, or by suit in *assumpsit* against the owner or occupant.

SEC. 5. If the person upon whom such notice is served or to whom it is directed shall feel himself aggrieved by the order of the health officer, he may appeal to the board of health by filing a claim of appeal with the city clerk within 48 hours after such notice is served or posted. Thereupon the board of health shall, at its next regular meeting or at some special meeting of which such person shall have had reasonable notice, give such person a full and fair hearing and shall sustain, modify, or reverse the order of said health officer. In the case of an appeal, the order of the health officer shall be deemed to be stayed until a decision is rendered by the board of health, and if such order be sustained in whole or in part by the board of health, it shall thereupon become effective subject to such changes or modifications as the board of health may make and shall be complied with by the person or persons affected thereby within such time as the board of health may determine.

SEC. 6. The health officer shall, subject to the orders of the city commission or board of health, be actively in charge of all matters pertaining to the public health of the city except as may be otherwise provided by the general laws or by the ordinance of this city. Unless it be otherwise ordered by the city commission he shall have charge and management of the city hospital, detention hospital and all other hospitals or places provided by the city for the detention or relief of sick or injured patients or those exposed to communicable diseases. In consultation with the board of health and with its approval he shall employ such clerks, medical attendants, nurses, or other help as may be necessary, properly and efficiently to maintain the public hospitals and places of detention and to carry on such other work as pertains

to his department. All of such employees shall serve during the pleasure of the health officer.

SEC. 7. Whenever in the judgment of the board of health there exists in or upon any building or premises a nuisance prejudicial to the public health; and the owner or occupant shall refuse or neglect to abate nuisance forthwith in the manner directed by the health officer or by the board of health, and it shall appear to the board of health that immediate action is required in order to preserve the public health, the board of health may thereupon cause said nuisance to be abated forthwith in such a manner as it may deem proper, and the reasonable expense incurred shall be a legal claim against the owner or occupant and a lien upon the premises, to be collected in the same manner as other special assessments, or by suit in assumpsit. The board of health may also, in such a case, at once and by force, if necessary, close up any such building or premises, and exclude all occupants therefrom until such nuisance shall be fully abated and until such premises or building, or both, if need be, are thoroughly disinfected, and in the judgment of the board of health fit for occupancy or use. Any person who shall resist the action of the board or its agents, under this section, shall be liable to the penalties provided for in this ordinance.

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SEC. 9. Whenever property of any description shall be destroyed by order of the health officer, as authorized by this ordinance, the same shall be paid for by the city commission like other claims against the city, except such claims as are valid claims against the county of Jackson.

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SEC. 11. The board of health may, from time to time, when the public health and safety so require, forbid the sale within this city of any fish, poultry, meat, vegetables, ice or provisions which are detrimental to the public health and safety, and it shall be the duty of the board of health to give public notice in two newspapers of this city of any resolution or order adopted by it, in which such sale is forbidden, for such length of time as the board of health may direct.

SEC. 12. The health officer, the sanitary inspector, and their assistants shall in the performance of their duties have all the powers of policemen.

SEC. 13. The board of health may from time to time make such regulations and by-laws respecting nuisances, sources of filth and causes of sickness as it shall deem necessary for the public health and safety.

SEC. 14. Any person who shall fail to comply with any of the provisions of this ordinance or shall refuse or neglect to comply with any of the regulations or by-laws or any of the requirements of the board of health, or of the health officer or any of their assistants in the performance of their duties, or any person who shall resist the board of health or any of its members, or the health officer or any of the assistants of the board of health, or of the health officer, in the performance of their duties, shall be punished by a fine not to exceed \$100, or by imprisonment not to exceed 90 days, or by both such fine or imprisonment in the discretion of the court.

SEC. 15. An ordinance entitled "An ordinance to establish a board of health and to define their powers and duties," passed July 16, 1877, and section 4 of an ordinance, entitled "Regulating the duties of scavengers," passed May 11, 1895, and all other ordinances and parts of ordinances inconsistent with this ordinance are hereby repealed.